COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
Fax (804) 698-4500 TDD (804) 698-4021
www.deq.virginia.gov

L. Preston Bryant, Jr.
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

June 1, 2007

Mr. Robert E. Driscoll
President & Chief Executive Officer
Mirant Potomac River, LLC
1400 North Royal Street
Alexandria, Virginia 22314

Location: Alexandria
Registration No.: 70228
County Plant No.: 510-00003

Dear Mr. Driscoll:

Attached is a permit to operate an electricity generating facility in accordance with the provisions of the Commonwealth of Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

In the course of evaluating the data and arriving at a final decision to approve the permit, the Department of Environmental Quality (DEQ) solicited written public comments by placing an advertisement in the *Alexandria Journal* and on the DEQ public and the Virginia Town Hall web pages on April 21, 2007. A public hearing was held on May 22, 2007. The required comment period, provided by 9 VAC 5-80-1020 A. expired on May 21, 2007.

This approval to operate shall not relieve Mirant Potomac River, LLC of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. 9 VAC 5-170-180 provides that you may request direct consideration of the decision by the

Board if the Director of the DEQ made the decision. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date of service of this decision (the date you actually received this decision or the date on which it was mailed to you, whichever occurred first), within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P. O. Box 1105
Richmond, VA 23218

In the event that this decision is served on you by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please call the central office at (804) 698-4366.

Sincerely,

David K. Paylor, Director
Department of Environmental Quality

DKP/TDB/Mirant SOP_Cover_Letter.doc

Attachment: Permit

CC: Director, OAPP (electronic file submission)
Manager, Data Analysis (electronic file submission)
Permits and Technical Assessment Branch, U.S. EPA, Region III (electronic file submission)

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Director

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1-800-592-5482

STATIONARY SOURCE PERMIT TO OPERATE

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

Mirant Corporation
8711 Westphalia Road
Upper Marlboro, MD 20774
Registration No.: 70228

is authorized to operate

an electricity generating facility

located at

1400 North Royal Street
Alexandria, VA 22314

in accordance with the Conditions of this permit.

Approved on **June 1, 2007**.

David K. Paylor, Director
Department of Environmental Quality

Permit consists of 12 pages.
Permit Conditions 1 to 23.

INTRODUCTION

This permit approval is issued in accordance with the Air Pollution Control Board's authority under 9 VAC 5-80-800.C.2. Any changes in existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action. In addition, this facility may be subject to additional applicable requirements not listed in this permit.

Words or terms used in this permit shall have meanings as provided in 9 VAC 5-10-20 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution. The regulatory reference or authority for each condition is listed in parentheses () after each condition.

Annual requirements to fulfill legal obligations to maintain current stationary source emissions data will necessitate a prompt response by the permittee to requests by the DEQ or the Board for information to include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact.

The availability of information submitted to the DEQ or the Board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.2-3700 through 2.2-3714 of the Code of Virginia, § 10.1-1314 (addressing information provided to the Board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal officials is subject to appropriate federal law and regulations governing confidentiality of such information.

PROCESS REQUIREMENTS

1. **Equipment List** - Equipment at this facility consists of the following:

Equipment to be modified			
Reference No.	**Equipment Description**	**Maximum Rated Capacity**	**Manufactured Date**
C1	Combustion Engineering, natural circulation, tangentially coal-fired with superheater and economizer with low NO_x burners.	970.1 mmBtu/hr	1949
C2	Combustion Engineering, natural circulation, tangentially coal-fired with superheater and economizer with low NO_x burners.	970.1 mmBtu/hr	1950
C3	Combustion Engineering, natural circulation, tangentially coal-fired with superheater and economizer with low NO_x burners and over fired air.	960.7 mmBtu/hr	1954
C4	Combustion Engineering, natural circulation, tangentially coal-fired with superheater and economizer with low NO_x burners and over fired air.	960.7 mmBtu/hr	1956
C5	Combustion Engineering, natural circulation, tangentially coal-fired with superheater and economizer with low NO_x burners and over fired air.	960.7 mmBtu/hr	1957
Trona Handling	Pneumatic upload system, full enclosure	n/a	n/a

Specifications included in the permit under this Condition are for informational purposes only and do not form enforceable terms or conditions of the permit.
(9 VAC 5-80-850, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

2. **SO_2 Emission Controls** – SO_2 emissions from boilers C1, C2, C3, C4, and C5 shall be controlled by the use of low sulfur coal and trona injection. The permittee shall maintain and operate a trona injection system on all five units at the facility. The permittee shall inject trona into the exhaust stream of each unit while the unit is operating.
(9 VAC 5-80-850, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

3. **Monitoring** – A Continuous Opacity Monitoring System (COMS) shall be utilized to measure and record the opacity of emissions from the stacks of boilers C1, C2, C3, C4, and C5. The monitors shall be maintained and calibrated in accordance with 9 VAC 5-40-41 of State Regulations.
(9 VAC 5-80-850, 9 VAC 5-40-40, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

4. **Monitoring** – A Continuous Emission Monitoring System (CEMS) and a flow monitoring system, each with an automated data acquisition and handling system, shall be utilized to measure and record the emissions of SO_2 from boilers C1, C2, C3, C4, and C5. The automated data acquisition and handling systems shall measure and record SO_2 concentration (in ppm), volumetric gas flow (in scfh), and SO_2 mass emissions (in lbs/hr) discharged to the atmosphere. The CEMS shall be certified, operated, and maintained according to approved procedures in accordance with the provisions of 40 CFR Part 75. The permittee shall utilize measured and recorded CEMS data to calculate short-term SO_2 emissions in pounds per million Btu, pounds per hour, and pounds per day; and annual SO_2 emissions in tons per year. SO_2 emissions in pounds per hour shall be calculated as the average of each 3-hour block period. SO_2 emissions in pounds per million Btu shall be calculated as the average of each block 3-hour period and as the average of each block 24-hour period beginning at 12:01 AM each calendar day. Daily SO_2 emissions in pounds per day shall be calculated daily as the sum of hourly emissions for each block 24-hour period beginning at 12:01 AM each calendar day. Annual SO_2 emissions shall be calculated monthly as the sum of each consecutive 12-month period. Calculations shall be maintained on-site for the most recent 5-year period and shall demonstrate compliance with the emission limitations set forth in Conditions 9 and 10.
(9 VAC 5-80-850, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

5. **Ambient Air Monitoring** – The permittee shall continue to operate the six (6) existing SO_2 monitors to measure, record, and report the ambient concentration of SO_2 from the stacks of boilers C1, C2, C3, C4, and C5 as outlined in Section IV.B.7 of the EPA Administrative Compliance Order (ACO) by Consent dated June 1, 2006. The permittee shall continue to submit all ambient monitoring reports as specified in the EPA ACO to the Director, Department of Environmental Quality. The monitors shall be operated, maintained, and subject to the appropriate QA/QC provisions as set forth in Appendix A of 40 CFR Part 58. This condition shall cease to apply 12-months following issuance of this permit unless extended in writing by the Director, Department of Environmental Quality.
(9 VAC 5-80-850, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

OPERATING LIMITATIONS

6. **Fuel** - The approved fuels for boilers C1, C2, C3, C4 and C5 are coal and distillate oil. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-850, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

7. **Fuel** - The coal and distillate oil shall meet the specifications below:
COAL:
Maximum heat content: 12,800 Btu/lb HHV
as determined by ASTM D2015, D3286, or a DEQ-approved equivalent method.

Maximum sulfur content per shipment: 0.9 %
as determined by STM D3177, D4239, or a DEQ-approved equivalent method

Maximum ash content per shipment: 11.0%
as determined by ASTM D3174, or a DEQ-approved equivalent method.

DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:
Maximum sulfur content per shipment: 0.8%
(9 VAC 5-80-850, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

8. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of coal and distillate oil. Each fuel supplier certification shall include the following:

   a. The name of the fuel supplier;

   b. The date on which the coal or distillate oil was received;

   c. The quantity of coal or distillate oil delivered in the shipment;

   d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications (ASTM D396) for numbers 2 fuel oil;

   e. The sulfur content of the coal or distillate oil;

   f. Documentation of sampling of the coal or distillate oil indicating the location of the fuel when the sample was taken; and;

   g. The methods used to determine the sulfur and ash contents of the coal;

   Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 7. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
   (9 VAC 5-80-850, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

EMISSION LIMITS

9. **Boiler Emission Limits** – SO_2 emissions from the operation of boilers C1, C2, C3, C4, and C5 shall not exceed the limits specified below:

Scenario	*Units On*	*Operating Hours*	*Averaging Period*	*SO_2 Rate (lb/MMBtu)▲*	*SO_2 Rate (lb/hour)**	*SO_2 Rate (lb/day)***
1a	3 & 4	Both Units @ 16 hrs max/ 8 hrs min	3-hour	0.38	800	15,150
			24-hour	0.44		
1b	3 & 4	Both Units @ 12 hrs max/ 12 hrs min	3-Hour	0.38	800	13,126
			24-Hour	0.42		
2a	3 & 5	Both Units @ 16 hrs max/ 8 hrs min	3-Hour	0.43	914	17,281
			24-Hour	0.46		
2b	3 & 5	Both units @ 12 hrs max/ 12 hrs min	3-Hour	0.43	914	14,956
			24-Hour	0.45		
3a	4 & 5	Both Units @ 16 hrs max/ 8 hrs min	3-Hour	0.42	921	17,401
			24-Hour	0.45		
3b	4 & 5	Both units @ 12 hrs max/ 12 hrs min	3-Hour	0.42	921	15,044
			24-Hour	0.43		
4a	1,2,3	Units 1,2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 3 @ 16 hrs max/ 8 hrs min	3-Hour	0.34	1,054	14,838
			24-Hour	0.40		
4b	1,2,3	Units 1,2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 3 @ 12 hrs max/ 12 hrs min	3-Hour	0.34	1,054	14,605
			24-Hour	0.40		
5a	1,2,4	Units 1,2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 4 @ 16 hrs max/ 8 hrs min	3-Hour	0.36	1,141	16,158
			24-Hour	0.40		
5b	1,2,4	Units 1,2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 4 @ 12 hrs max/ 12 hrs min	3-Hour	0.36	1,141	15,838
			24-Hour	0.40		
6a	1,2,5	Units 1,2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 5 @ 16 hrs max/ 8 hrs min	3-Hour	0.40	1,240	17,456
			24-Hour	0.43		
6b	1,2,5	Units 1,2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 5 @ 12 hrs max/ 12 hrs min	3-Hour	0.40	1,240	17,182
			24-Hour	0.43		
7a	3,4,5	All units @ 16 hrs max/ 8 hrs min	3-Hour	0.28	899	17,008
			24-Hour	0.30		
7b	3,4,5	All units @ 12 hrs max/ 12 hrs min	3-Hour	0.28	899	14,720
			24-Hour	0.30		

Scenario	*Units On*	*Operating Hours*	*Averaging Period*	*SO_2 Rate (lb/MMBtu)▲*	*SO_2 Rate (lb/hour)**	*SO_2 Rate (lb/day)***
7c	3,4,5	All units @ 8 hrs max/ 16 hrs min	3-Hour	0.28	835	11,544
			24-Hour	0.26		
8a	1	8 hrs max/ 8 hrs min/ 8 hrs off	3-Hour	1.26	1,327	15,553
			24-Hour	1.51		
8b	1	16 hrs max/ 8 hrs off	3-Hour	1.24	1,306	20,892
			24-Hour	1.64		
9a	2	8 hrs max/ 8 hrs min/ 8 hrs off	3-Hour	1.02	1,050	12,224
			24-Hour	1.29		
9b	2	16 hrs max/ 8 hrs off	3-Hour	0.96	988	15,805
			24-Hour	1.14		
10a	3	12 hrs max/ 12 hrs min	3-Hour	0.75	764	12,564
			24-Hour	0.84		
10b	3	16 hrs max/ 8 hrs min	3-Hour	0.75	764	14,484
			24-Hour	0.90		
11a	4	12 hrs max/ 12 hrs min	3-Hour	0.79	859	14,054
			24-Hour	0.86		
11b	4	16 hrs max/ 8 hrs min	3-Hour	0.79	859	16,239
			24-Hour	0.86		
12a	5	12 hrs max/ 12 hrs min	3-Hour	0.78	863	14,063
			24-Hour	0.82		
12b	5	16 hrs max/ 8 hrs min	3-Hour	0.78	863	16,283
			24-Hour	0.92		
13a	1,2	Both units 8 hrs max/ 8 hrs min/ 8 hrs off	3-Hour	0.56	1,166	13,624
			24-Hour	0.70		
13b	1,2	Both units 16 hrs max/ 8 hrs off	3-Hour	0.54	1,124	17,988
			24-Hour	0.69		
14a	1,3	Unit 1 @ 8 hrs max/ 8 hrs min/ 8 hrs off, Unit 3 @ 12 hrs max /12 hrs min	3-Hour	0.49	1,015	14,257
			24-Hour	0.59		
14b	1,3	Unit 1 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 3 @ 16 hrs max/ 8 hrs min	3-Hour	0.49	1,015	15,511
			24-Hour	0.59		
15a	1,4	Unit 1 @ 8 hrs max/ 8 hrs min/ 8 hrs off, Unit 4 @ 12 hrs max /12 hrs min	3-Hour	0.51	1,091	15,368
			24-Hour	0.58		

Scenario	*Units On*	*Operating Hours*	*Averaging Period*	*SO_2 Rate (lb/MMBtu)▲*	*SO_2 Rate (lb/hour)**	*SO_2 Rate (lb/day)***
15b	1,4	Unit 1 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 4 @ 16 hrs max/ 8 hrs min	3-Hour	0.51	1,091	16,779
			24-Hour	0.58		
16a	1,5	Unit 1 @ 8 hrs max/ 8 hrs min/ 8 hrs off, Unit 5 @ 12 hrs max /12 hrs min	3-Hour	0.60	1,296	18,224
			24-Hour	0.62		
16b	1,5	Unit 1 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 5 @ 16 hrs max/ 8 hrs min	3-Hour	0.60	1,296	19,932
			24-Hour	0.62		
17a	2,3	Unit 2 @ 8 hrs max/ 8 hrs min/ 8 hrs off, Unit 3 @ 12 hrs max /12 hrs min	3-Hour	0.45	921	12,931
			24-Hour	0.53		
17b	2,3	Unit 2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 3 @ 16 hrs max/ 8 hrs min	3-Hour	0.45	921	14,083
			24-Hour	0.53		
18a	2,4	Unit 2 @ 8 hrs max/ 8 hrs min/ 8 hrs off, Unit 4 @ 12 hrs max /12 hrs min	3-Hour	0.48	1,016	14,292
			24-Hour	0.52		
18b	2,4	Unit 2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 4 @ 16 hrs max/ 8 hrs min	3-Hour	0.48	1,016	15,619
			24-Hour	0.52		
19a	2,5	Unit 2 @ 8 hrs max/ 8 hrs min/ 8 hrs off, Unit 5 @ 12 hrs max /12 hrs min	3-Hour	0.56	1,175	16,508
			24-Hour	0.55		
19b	2,5	Unit 2 @ 8 hrs max/ 8 hrs min/ 8 hrs off; Unit 5 @ 16 hrs max/ 8 hrs min	3-Hour	0.56	1,175	18,073
			24-Hour	0.55		
20	1,3,4	Unit 1 @ 8 hrs max/ 8 hrs min/ 8 hrs off, Units 3,4 @ 12 hrs max /12 hrs min	3-Hour	0.30	947	14,066
			24-Hour	0.35		
21	1,3,5	Unit 1 @ 8 hrs max/ 8 hrs min/ 8 hrs off, Units 3,5 @ 12 hrs max /12 hrs min	3-Hour	0.33	1,049	15,552
			24-Hour	0.37		
22	1,4,5	Unit 1 @ 8 hrs max/ 8 hrs min/ 8 hrs off, Units 4,5 @ 12 hrs max /12 hrs min	3-Hour	0.34	1,104	16,376
			24-Hour	0.36		
23	2,3,4	Unit 2 @ 8 hrs max/ 8 hrs min/ 8 hrs off, Units 3,4 @ 12 hrs max /12 hrs min	3-Hour	0.29	909	13,493
			24-Hour	0.33		
24	2,3,5	Unit 2 @ 8 hrs max/ 8 hrs min/ 8 hrs off, Units 3,5 @ 12 hrs max /12 hrs min	3-Hour	0.32	1,009	14,965
			24-Hour	0.34		
25	2,4,5	Unit 2 @ 8 hrs max/ 8 hrs min/ 8 hrs off, Units 4,5 @ 12 hrs max /12 hrs min	3-Hour	0.33	1,064	15,775
			24-Hour	0.33		

*Calculated hourly as the average of each 3-hour block period.

** Daily SO_2 emissions in pounds per day shall be calculated as the sum of hourly emissions for each block 24-hour period beginning at 12:01 AM each calendar day.

▲3-hour SO_2 emissions in pounds per million Btu shall be calculated as the average of hourly emissions for each block 3-hour period beginning at 12:01 AM each calendar day; 24-hour SO_2 emissions in pounds per million Btu shall be calculated as the average of hourly emissions for each block 24-hour period beginning at 12:01 AM each calendar day.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 4. (9 VAC 5-80-850, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

10. **Facility wide Emission Limits** - Total annual emissions of SO_2 from boilers C1, C2, C3, C4, and C5 (combined) shall not exceed the limits specified below:

	Annual (tons per year)**
Boilers C1, C2, C3, C4, and C5 (combined)	3,813

**Calculated monthly as the sum of each consecutive 12-month period.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 4. (9 VAC 5-80-850, 9 VAC 5-80-800.C.2, 9 VAC 5-80-820.D, and 9 VAC 5-50-260)

11. **Operating Scenarios** – Upon issuance of this permit, each calendar day the permittee shall identify and record the next calendar day's projected operating scenario and shall record in a logbook the previous calendar day's actual operating scenario in accordance with the scenarios outlined in Condition 9 of this permit. The logbook shall be maintained on-site for the most recent five (5) year period and shall be made available for inspection.
(9 VAC 5-80-850, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

12. **Visible Emission Limit** - Visible emissions from the boilers C1, C2, C3, C4, and C5 shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-850, 9 VAC 5-40-80, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

RECORDS

13. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Northern Virginia Regional Office. These records shall include, but are not limited to:

    a. All fuel supplier certifications.

b. Emissions calculations and CEMS data for SO_2 from the boilers to verify compliance with the lbs/mmBtu, lbs/hour, and tons/year emission limitations in Conditions 9 and 10.

c. CEMS, COMS, and SO_2 ambient air monitor maintenance and calibration records.

d. All recorded COMS and SO_2 ambient air monitoring data.

e. Daily records of the operating scenarios under which the facility operated for each calendar day as approved by the Northern Virginia Regional Office.

f. Scheduled and unscheduled boiler maintenance and operator training.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-850, 9 VAC 5-50-50, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

NOTIFICATIONS

14. **Notifications** - The permittee shall furnish written notification to the Northern Virginia Regional Office of:

    a. The anticipated dates of any continuous monitoring system performance evaluations performed in accordance with 40 CFR Part 75 postmarked not less than 30 days prior to such date.

    (9 VAC 5-50-50, 9 VAC 5-80-850, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

ALTERNATIVE OPERATING SCENARIO

15. **Alternate Operating Scenario (Optional)** – In lieu of compliance with the provisions of this permit, the permittee may elect to comply with the following Alternate Operating Scenario until such time as the permittee is notified by the Director, Department of Environmental Quality that it has been determined that the installation of the new 230 kV transmission lines has been substantially completed. At such time as this notification is made by the Director, Department of Environmental Quality, the permittee shall cease to operate under this Alternate Operating Scenario and shall comply with the terms and conditions of this permit as specified in Specific Conditions 1 through 14 and General Conditions 16 through 22. For the purposes of this permit, the Alternate Operating Scenario shall consist of the provisions of the EPA Administrative Compliance Order (ACO) by Consent, Docket No. CAA-03-2006-0163DA, dated June 1, 2006; the Department of Energy (DOE) Order No. 202-05-3, issued by the Department of Energy on December 20, 2005, in Docket No. EO-05-01 in response to an Emergency Petition and Complaint filed by the District of Columbia Public Service Commission; and DOE Order No. 202-07-2 issued by DOE on January 31, 2007, in Docket No. EO-05-01. The EPA ACO by Consent dated June 1, 2006, is attached as Appendix 1 to this permit. The DOE Order No. 202-05-3 dated December 20, 2005, is attached as Appendix 2 to this permit. The DOE Order No. 202-07-2 dated January 31, 2007, is attached as Appendix 3 to this permit.
    (9 VAC 5-80-850, 9 VAC 5-80-800.C.2 and 9 VAC 5-80-820.D)

GENERAL CONDITIONS

16. **Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

    a. To enter upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;

    b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board Regulations;

    c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board Regulations; and

    d. To sample or test at reasonable times.

    For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.
    (9 VAC 5-170-130 and 9 VAC 5-80-850)

17. **Notification for Facility or Control Equipment Malfunction** - The permittee shall furnish notification to the Northern Virginia Regional Office of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone, or telegraph. Such notification shall be made as soon as practicable but no later than four daytime business hours after the malfunction is discovered. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within two weeks of discovery of the malfunction. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify the Northern Virginia Regional Office in writing.
    (9 VAC 5-20-180 C and 9 VAC 5-80-850)

18. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
    (9 VAC 5-20-180 I and 9 VAC 5-80-850)

19. **Maintenance/Operating Procedures** – At all times, including periods of start-up, shutdown, soot blowing, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

    The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to boilers C1, C2, C3, C4, and C5.

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

    d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures, prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

    Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
    (9 VAC 5-50-20 E and 9 VAC 5-80-850)

20. **Permit Suspension/Revocation** - This permit may be revoked if the permittee:

    a. Knowingly makes material misstatements in the permit application or any amendments to it;

    b. Fails to comply with the terms or conditions of this permit;

    c. Fails to comply with any emission standards applicable to a permitted emissions unit;

    d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;

    e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect at the time that this permit is issued;

    f. Fails to comply with the applicable provisions of Articles 6, 8 and 9 of 9 VAC 5 Chapter 80.
    (9 VAC 5-80-1010)

21. **Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Northern Virginia Regional Office of the change of ownership within 30 days of the transfer.
(9 VAC 5-80-940)

22. **Severability** - The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-800 C.2)

23. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.
(9 VAC 5-80-860 D)

APPENDIX 1
Environmental Protection Agency Administrative Compliance Order (ACO) by Consent dated June 1, 2006.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

In the Matter of:	:	
	:	
Mirant Potomac River LLC	:	
Potomac River Generating Station	:	
Alexandria, Virginia	:	Docket No. CAA-03-2006-0163DA
	:	
	:	
	:	
	:	

ADMINISTRATIVE COMPLIANCE ORDER
BY CONSENT

I. STATUTORY AUTHORITY

This Order is issued pursuant to Section 113(a)(1) of the Clean Air Act (the "Act"), 42 U.S.C. § 7413(a)(1). Under Section 113(a)(1) of the Act, the Administrator of the United States Environmental Protection Agency ("EPA" or "the Agency") has the authority to issue Orders requiring persons to comply with the requirements of an applicable State Implementation Plan ("SIP") or permit issued by a state. The Administrator has delegated his authority to issue such Orders within the geographical jurisdiction of EPA Region III to the Regional Administrator of EPA Region III, who has re-delegated this authority to the Director of the Air Protection Division of Region III. The geographical jurisdiction of EPA Region III includes the Commonwealth of Virginia.

This Order is issued to Mirant Potomac River, LLC ("Mirant") for its Potomac River Generating Station in Alexandria, Virginia.

II. FINDINGS OF FACT

1. Mirant owns and operates an electricity generating station known as the Potomac River Generating Station ("PRGS") in Alexandria, Virginia.

2. Mirant is a Limited Liability Company organized in the State of Delaware on August 2, 2000.

3. Pursuant to the Order By Consent entered into by Mirant and the Virginia Department of Environmental Quality ("VaDEQ"), effective September 23, 2004, Mirant performed a

Dispersion Modeling Analysis to assess the effect of Downwash (the "downwash study") of emissions from the PRGS. The downwash study used computer modeling to predict ambient concentrations of pollutants emitted by the PRGS under certain weather and atmospheric conditions.

4. Mirant provided the results of the downwash study to VaDEQ in August 2005. By letter dated August 19, 2005, VaDEQ informed Mirant that the downwash study demonstrated that emissions from the PRGS result in, cause or substantially contribute to, modeled violations of the primary National Ambient Air Quality Standards ("NAAQS") for sulfur dioxide ("S02"), nitrogen dioxide ("NO2"), and PM10 under certain atmospheric conditions.

5. VaDEQ's August 19th letter also requested that Mirant immediately undertake "such action as is necessary to ensure protection of human health and the environment, in the area surrounding the Potomac River Generating Station." VaDEQ cited 9 VAC 5-20-180(I) as the authority for this action.

6. The provision of the Virginia State Implementation Plan ("SIP") cited by VaDEQ, 9 VAC 5-20-180(I), has been approved and incorporated into the Virginia SIP at 40 C.F.R. § 52.2420(c), and is therefore federally-enforceable.

7. Mirant shut down all five Units of the PRGS at midnight on August 24, 2005.

8. On August 24, 2005, the District of Columbia Public Service Commission ("DCPSC") filed an "Emergency Petition and Complaint" with the United States Department of Energy ("DOE") and the Federal Energy Regulatory Commission ("FERC"), respectively, pursuant to the Federal Power Act ("FPA"), 16 U.S.C. § 824a(c), 824f and 825h, and Section 301(b) of the DOE Organization Act, 42 U.S.C. § 7151(b). The Emergency Petition requested that DOE find that an emergency exists under Section 202(c) of the FPA and issue an order requiring Mirant to continue operation of the PRGS.

9. Following additional modeling and assessment of the downwash study, Mirant re-started Unit 1 of the PRGS on September 21, 2005. Additional modeling conducted by Mirant indicated that operation of only Unit 1 would not cause any modeled NAAQS exceedances.

10. On December 20th, 2005, the Secretary of Energy issued Order No. 202-05-3 ("DOE Order") finding that an emergency did exist and ordering Mirant to, among other things, submit a plan to DOE detailing the steps to be taken to ensure Mirant's compliance with the DOE Order.

11. On December 30, 2005, Mirant submitted to DOE the Operating Plan setting forth the steps that Mirant would take to ensure compliance with the DOE Order.

12. By letter dated January 4, 2006, DOE required that Mirant "immediately take the necessary steps to implement Option A of the intermediate phase proposed in the [Operating Plan]." The DOE letter also noted that implementation of Option A was an interim measure.

13. In accordance with DOE's directive to maximize electric generation while not causing or contributing to a NAAQS violation, Mirant supplemented the original Operating Plan with additional operating configurations and modeling. The supplements contemplated that Mirant would use trona injection and a blend of low sulfur coal to manage SO2 emissions. Mirant stated that these supplemental operating scenarios result in no modeled NAAQS exceedances.

14. By letter dated December 22, 2005, EPA issued a Notice to Mirant and the VaDEQ, alleging that Mirant did not immediately undertake the necessary action to protect human health and the environment required by VaDEQ's August 19, 2005 letter, and that Mirant was therefore in violation of 9 VAC 5-20-180(I) and the federally-enforceable Virginia SIP for the period of time in which it failed to immediately shut down all the PRGS Units.

15. Following issuance of the Notice, EPA met with Mirant on several occasions to discuss settlement of EPA's possible enforcement action for the violation alleged in the Notice under Section 113 of the CAA. These discussions, along with discussions with DOE and VaDEQ, have resulted in this Order.

16. In its evaluation of potential PRGS operating scenarios, DOE has determined that the levels of PRGS operation allowed under the terms and conditions of Part IV of this Order are necessary to assure an acceptable level of electric reliability to the District of Columbia under the circumstances.

17. EPA will require use of the AERMOD model with a 24 hour background SO2 concentration of 51 micrograms per cubic meter ("ug/m3") when evaluating the PRGS's effects on the SO2 NAAQS. In Mirant's December 30, 2005 Operating Plan and subsequent submissions to DOE and EPA, Mirant has used varying background concentrations for SO2 in determining the maximum predicted impact of various operating scenarios at the PRGS. EPA has determined that Mirant's use of these varying background concentrations was technically defensible but that additional conservatism will be required in this Order. In an effort to build additional conservatism into Mirant's operating scenarios to ensure protection of the NAAQS, EPA has instructed Mirant to use a background concentration of 51ug/m3 to add to the AERMOD 24 hour SO2 modeled pollutant concentrations to determine the maximum predicted impacts for all operational scenarios considered during and incorporated into this Order.

18. EPA has determined through modeling and analysis that there is a strong correlation between the days, hours, and locations of predicted highest 24-hour concentrations of

SO2 and predicted highest 24-hour concentrations of PM10; that the predicted highest concentrations of SO2 are higher, relative to the SO2 NAAQS, than the predicted highest concentrations of PM10 relative to the PM10 NAAQS; and that measures taken to reduce SO2 emissions from the PRGS facility, such as reduced levels of operation and/or increased levels of trona usage, will also reduce emissions of PM10.

III. CONCLUSIONS OF LAW

19. Mirant is a "person" within the meaning of Section 302(e) of the CAA, 42 U.S.C. § 7602(e), and within the meaning of Section 113(a) of the CAA, 42 U.S.C. § 7413(a), because it is a corporation.

20. EPA concludes that Mirant violated 9 VAC 5-20-180(I) by failing to immediately shut down the boilers at the PRGS upon receipt of the letter from VaDEQ, and that such failure is also a violation of Section 113(a) of the CAA, 42 U.S.C. § 7413(a).

21. Mirant has had an opportunity to confer with the Administrator or his designee regarding this alleged violation and the terms of this Order. Mirant denies that any violation occurred, but agrees to the entry of this Order.

22. EPA has determined that the following schedule and plan for compliance is reasonable, taking into account the seriousness of the modeled NAAQS exceedances and the concerns of DOE regarding electric reliability in the Central D.C. area, and that this schedule is expeditious given the length of time it will take Mirant to take more permanent measures as well as the time it will take for additional electric transmission lines to be put into service to alleviate the emergency as determined by DOE.

IV. ORDER

Based upon the forgoing, under Section 113(a)(4) of the Act, 42 U.S.C. § 7413(a)(4), IT IS DETERMINED AND ORDERED that:

A. Definitions - For the purpose of this Order, the following terms shall have the meanings defined below:

3-Hour Rolling SO2 and 24-Hour Calendar Day SO2 Emission Rate. For the purpose of calculating the specified rate in Table 1 for a specified time period, the actual SO2 emission rate is determined by dividing the sum of the total pounds of actual SO2 emissions from the boiler stack of that unit, as determined by hourly CEMS data, as certified by 40 CFR Part 75, by the sum of the total heat input in million Btus from that coal-fired boiler unit.

For any 3 hour rolling period when there are fewer than 2 hours of actual emissions from a coal-fired boiler unit, an emission rate for that 3 hour period that would have to comply with the Table 1 emission rates does not need to be calculated for that unit.

For any calendar day when there are fewer than 3 hours of actual emissions from a coal-fired boiler unit, a 24 hour emission rate to comply with Table 1 need not be calculated for that unit.

On any day when a unit runs between 3 and 18 hours, the complying 24 hour emissions rate for Table 1 shall be calculated as follows:

If a unit operates between 3 hours and 10 hours, the SO2 limit for that unit equals the 3 hour rate in Table 1 minus 1/3 of the difference between the 3 hr and 24 hr rate for that unit configuration;

If a unit operates 10 hours or more up to 18 hours, the SO2 limit for that unit equals the 3 hour rate in Table 1 minus 2/3 of the difference between the 3 hr and 24 hr rate for that unit configuration.

If a unit operates 18 hours or more, the 24 hour rate in Table 1 shall apply.

Nothing in this paragraph is intended to allow greater operation of a unit than what is specified in Table 1 where this Order requires operation in accordance with Table 1. In addition, where this Order requires operation in accordance with Table 1 and that configuration calls for unit(s) to operate between 3 and 18 hours, then the Table 1 emission rates shall apply without the above adjustments.

AERMOD Default means Version 04300 of the AERMOD computer model, currently approved for general use by EPA.

AERMOD EBD means the AERMOD computer model with modified direction-specific building dimensions derived from the Wind Tunnel Study.

Alternative Operating Scenario means a method of operating the Potomac River Generating Station during the Model Evaluation Study, which has been approved by EPA and reviewed by VaDEQ.

DOE means the United States Department of Energy

DOE Order means Order No. 202-05-3, issued by the Department of Energy on December 20, 2005 in Docket No. EO-05-01 in response to an Emergency Petition and Complaint filed by the District of Columbia Public Service Commission.

EPA means the United States Environmental Protection Agency, Region III.

Line Outage Situation means that one or both 230 kV transmission lines, serving the Central D.C. area are out of service due to a planned or unplanned outage.

Mirant means Mirant Potomac River, LLC.

Modeled NAAQS Exceedance means a modeled 3-hour average sulfur dioxide concentration which, when a background concentration of 238.4 micrograms per cubic meter is added, exceeds 1,300 micrograms per cubic meter; or a modeled 24-hour average sulfur dioxide concentration which, when a background concentration of 51 micrograms per cubic meter is added, exceeds 365 micrograms per cubic meter; or, a modeled 24 hour PM10 concentration which, when a background concentration of 45 micrograms per cubic meter is added, exceeds 150 micrograms per cubic meter.

Model Evaluation Study or MES means a study proposed by Mirant and approved by EPA and reviewed by VaDEQ to compare multiple computer model predicted ambient air impacts to actual measured ambient air concentrations for the purpose of determining the best performing computer model in evaluating the effects of the emissions resulting from the operation of the PRGS.

Monitoring Plan means a plan proposed by Mirant and approved by EPA and reviewed by VaDEQ as part of the MES for the installation and use of ambient air monitors in the vicinity of the PRGS to monitor ambient air quality impacts of the PRGS.

Monitors means the ambient air monitors installed in accordance with the Monitoring Plan.

NAAQS means the National Ambient Air Quality Standards.

Non-Line Outage Situation means all periods of time that do not qualify as a Line Outage Situation.

Operating Parameters means the hourly average MW load of each unit for each hour of that day at the PRGS, the hourly average SO2 emission rate expressed in lb/MMBtu for each unit for each hour of that day, and the emission rate of PM10 expressed in lb/MMBtu.

Operating Plan means the December 30, 2005 Operating Plan submitted to DOE by Mirant to respond to the requirement for a compliance plan under the DOE Order.

Predictive Modeling means the daily use of an approved AERMOD computer model run in accordance with 40 C.F.R. Part 51, Appendix W, with forecasted weather conditions and planned Operating Parameters for the following day to predict modeled NAAQS compliance on a day-ahead basis.

PJM means the regional transmission organization for the region where the PRGS is located.

PRGS means the coal-fired electric generating station owned by Mirant and located in Alexandria, VA, comprised of three baseload generating units (Units 3, 4, 5) of approximately 102 MW each and two cycling units (Units 1 and 2) of approximately 88 MW each.

VaDEQ means the Virginia Department of Environmental Quality.

Wind Tunnel Study means a study proposed by Mirant using a physical model, as outlined in CPP Wind's Wind Tunnel Model Evaluation protocol, dated January 17, 2006, reviewed by EPA and VaDEQ, and conducted in accordance with EPA Guidance, to evaluate the accuracy of AERMOD Default's assumptions with respect to the direction-specific effective building dimensions when applied to the PRGS.

B. **Operation During Non-Line Outage Situations**

1. Mirant shall implement and comply with all of the single-unit, two-unit, and three-unit configuration constraints listed in Table 1 below until such time as Mirant is authorized by EPA and DOE to begin an alternative operating scenario as described below. Mirant shall operate each unit within the applicable hours-of-operation and SO2 emission rate restrictions listed in the table each calendar day. Generally, unit transitions and unit startups will occur within (+/-) four hours of midnight. The following procedures will be followed when there is a transition between operating scenarios:

a. When transitioning between two units, the unit that is coming offline will cease burning coal before the starting unit begins burning coal. Number 2 oil will be burned during the warm-up phase of the starting unit and during the shutdown phase of the unit coming offline. The number of boilers burning coal will not exceed at any time the constraints applicable to the Unit Configurations listed in Table 1.

b. When a change in operating Unit Configuration occurs, Mirant shall, for the balance of the calendar day, meet the more stringent of the 3-hour SO2 and/or 24-hour SO2 rate caps and hours of operation applicable to:

(i.) the Unit Configuration being ceased, and
(ii.) the Unit Configuration being commenced.

TABLE 1

Unit Configuration	24-Hr Calendar Day SO2 Rate - lb/MBtu	3-Hr Rolling SO2 Rate - lb/MBtu	Operating Constraints
Unit 1	1.20	1.20	8 hrs max / 8 min / 8 off, 14,800 lb/day
Unit 1	0.84	1.14	None
Unit 2	0.41	0.73	None
Unit 3	0.31	0.66	None
Unit 4	0.36	0.70	None
Unit 5	0.61	0.90	None
Units 1 & 2	0.29	0.50	Both Units: 100% Load 24 hrs/day
Units 1 & 3	0.24	0.51	#1 @ 8 max / 8 min / 8 off, none on #3
Units 2 & 3	0.23	0.40	#2 @ 8 max / 8 min / 8 off, none on #3
Units 1 & 4	0.30	0.54	#1 @ 8 max / 8 min / 8 off, none on #4
Units 2 & 4	0.25	0.44	#2 @ 8 max / 8 min / 8 off, none on #4
Units 1 & 5	0.43	0.60	#1 @ 8 max / 8 min / 8 off, none on #5
Units 2 & 5	0.35	0.55	#2 @ 8 max / 8 min / 8 off, none on #5
Units 3 & 4	0.23	0.43	#3 @ 6 max / 18 min; #4 @ 7 max /17 min
Units 3 & 5	0.24	0.43	Both units @ 12 hr max / 12 hr min
Units 4 & 5	0.27	0.51	Both units @ 12 hr max / 12 hr min
Units 1, 2 & 3	0.21	0.36	#1&2 @ 5 max / 4 min / 15 off, none on #3
Units 1, 2, &4	0.24	0.35	#1&2 @ 6 max / 5 min / 13 off, none on #4
Units 1, 2, &5	0.27	0.42	#1&2 @ 8 max / 8 min / 8 off, none on #5

2. **Schedule for Installation of Trona Injection at All Boiler Units**

a. In accordance with the schedule set forth in Mirant's Operating Plan of December 30, 2005, Mirant shall ensure that Trona injection units are installed and operated as follows:

(1). March 20, 2006 - In addition to the two portable, rental Trona units, Mirant shall have a third operational Trona injection unit, whether an engineered unit or a rental unit. Mirant shall operate all three Trona units whenever three or more boilers are operating.

(2). April 28, 2006 - Mirant shall have installed and be operating three engineered Trona injection units, and shall operate each unit whenever the boiler to which it is attached is operating. Mirant shall operate the rental Trona units on boilers not equipped with operating engineered units.

(3). May 31, 2006 - Mirant shall have installed and be operating

all five engineered Trona injection units, and shall operate each unit whenever the boiler to which it is attached is operating.

3. **Model Evaluation Study**

a. Mirant shall undertake a Model Evaluation Study to determine the best performing model for predicting the computer-modeled ambient air quality impacts from the PRGS's operations. Prior to beginning the MES, Mirant must submit to EPA for approval an MES protocol, and simultaneously send a copy to VaDEQ. Mirant may begin operating the PRGS in a manner that does not cause or contribute to Modeled NAAQS Exceedances by using Predictive Modeling as described in subsection 4 below, after completing the following tasks:

(1). EPA approval of the MES protocol;
(2). installation and operation of at least 3 SO2 monitors in accordance with the approved monitoring plan;
(3). execution of this Order by EPA; and
(4). authorization by DOE for Mirant to operate in accordance with this Order.

b. Upon commencement of daily predictive modeling performed in conjunction with the MES, the SO2 emission rate limitations and other unit operating restrictions set forth in Table 1 shall no longer apply unless otherwise indicated. The Table 1 restrictions apply if Mirant ceases to operate the PRGS in accordance with the MES.

4. **Operations in Accordance with Daily Predictive Modeling**

a. By 10 AM each morning, Mirant shall collect actual weather predictions from the National Weather Service for the Reagan National Airport and use them along with planned Operating Parameters as inputs to conduct a computer modeling run for the following day using AERMOD Default. If the modeling confirms that Mirant's planned operations for the following day will not cause or contribute to a Modeled NAAQS Exceedance, Mirant may operate on the day modeled in accordance with the modeled Operating Parameters. If the Predictive Modeling indicates that the planned Operating Parameters will result in one or more Modeled NAAQS Exceedances, Mirant shall not run under those operating parameters but shall continue to adjust its planned operations and conduct additional modeling runs using the adjusted Operating Parameters to confirm that the adjusted operations will not cause or contribute to a Modeled NAAQS Exceedance for the day modeled.

b. During Line Outage Situations, Predictive Modeling must continue to be performed but the PRGS shall be operated under the Line Outage Situation provision in accordance with the DOE Order and this Order.

c. If the Predictive Modeling indicates that the predicted weather conditions and planned Operating Parameters do not result in a Modeled NAAQS Exceedance,

Mirant is authorized to operate using the planned Operating Parameters and shall not be in violation of this Order; or 9 VAC 5-20-180(I), as incorporated into the Virginia SIP at 40 C.F.R. 52.2420(c); nor shall such operation be deemed to give a right for a cause of action for any alleged violation of the NAAQS as a result of Mirant causing or contributing to any modeled or monitored exceedance of the NAAQS. This release shall only apply to alleged exceedances or violations occurring during the lifetime of the Order or the duration of the MES if the requirements of this Order have been incorporated into a state operating permit; shall only apply to laws in existence on the effective date of the Order; and shall not prevent Virginia from issuing an order under 9 VAC 5-20-180(I) or EPA from taking action under Section 303 of the Clean Air Act.

5. **Operation During Certain Periods of Elevated SO2 Impacts After MES Approval**

a. As a precaution, after the installation of at least three monitors, Mirant shall institute additional measures that will apply whenever ambient concentrations of SO2 are elevated, as defined below. Specifically, Mirant shall:

(1). Install a monitor alert system in the Potomac River Control Room that registers an audible alarm if in any one hour the average measured ambient concentration of SO2 at any monitor is equal to or greater than 80% of the 3 hour SO2 National Ambient Air Quality Standard, measured as 400 parts per billion (1,040 $\mu g/m^3$).

(a). During the hour following the sounding of the alarm, Mirant shall make operational adjustments, which may include increasing Trona injection and/or decreasing operation and shall observe the effect of these adjustments on the average, measured ambient concentration of SO2.

(b). If, at the end of the second hour, the average measured ambient concentration of SO2 is not equal to or less than 1,040 $\mu g/m^3$, Mirant shall adjust its operations to conform to the scenarios described in Table 1 until the rolling 3 hour average is less than 1,040 $\mu g/m^3$.

(2). Mirant shall also configure the audible alarm to sound if, in any 12 hour period, any monitor measures an average, ambient concentration of SO2 equal to or greater than 80% of the 24 hour SO2 National Ambient Air Quality Standard, measured as 112 parts per billion (292 $\mu g/m^{3)}$.

(a). During the following 6 hours, Mirant shall make operational adjustments, which may include increasing Trona injection and/or decreasing operation and shall observe the effect of these adjustments on the measured ambient concentration of SO2.

(b). If, at the end of the 6 hour period, the average, measured ambient concentration of SO2 is not equal to or less than 292 $\mu g/m^3$, Mirant shall adjust its operations to conform to the scenarios described in Table 1 for the balance of the calendar day.

(3). Mirant shall also configure the audible alarm to sound if, after the first 6 months of operation, any monitor measures an average, ambient concentration of SO2 equal to or greater than 80% of the annual average NAAQS, measured as 64 $\mu g/m^3$.

(a). During the following 3 months, Mirant shall monitor the 7 month, 8 month and 9 month averages.

(b). If, at the end of 9 months, the average, measured ambient concentration of SO2 is not equal to or less than 64 $\mu g/m^3$, Mirant shall adjust its operations so that the annual, measured ambient concentration of SO2 does not exceed 80 $\mu g/m^3$.

(4). If the audible alarm sounds more than 5 times in a calendar month, Mirant shall, on a one-time basis, adjust the alarm to 75% of the applicable NAAQS.

6. **PM10 Predictive Modeling**

Whenever Mirant operates 4 or more units, it shall abide by an emission rate of 0.055 lbs/MM Btu and shall first conduct Predictive Modeling using this rate to determine whether operation of the units causes or contributes to a Modeled NAAQS Exceedance. If the Predictive Modeling indicates that the planned Operating Parameters will result in a Modeled NAAQS Exceedance for PM10, Mirant shall adjust its planned operating scenario and re-run the Predictive Modeling with an emission rate of 0.055 lbs/MM Btu until such time as Mirant confirms through Predictive Modeling that the adjusted operations will not cause or contribute to a Modeled NAAQS Exceedance for PM10.

7. **AERMOD EBD - Physical Changes Requiring Model Changes**

If Mirant elects to refine the AERMOD Default model by performing a Wind Tunnel Study, Mirant will submit a Wind Tunnel Study evaluation protocol for review by EPA and VaDEQ and approval by EPA. The protocol will describe the technical features of the proposed Wind Tunnel Study and the theoretical basis for demonstrating that the data generated should be used to develop a site-specific set of assumptions, including equivalent building dimensions, to be applied to AERMOD Default.

The results of the Wind Tunnel Study shall be submitted to EPA for approval and may result in site-specific equivalent building dimensions to be used in lieu of the assumptions in the AERMOD Default model. The results must be submitted to EPA no later than 90 days following entry of this AO. Upon approval of AERMOD EBD by EPA and VaDEQ, Mirant shall operate for the balance of the MES study period applying AERMOD EBD in its Predictive Modeling.

As the Model Evaluation Study progresses, Mirant may make other changes at the PRGS, including physical changes such as changes to the stacks. In that event, inputs utilized during the Predictive Modeling and in the models evaluated at the conclusion of the Model Evaluation Study (and the model used to develop emission limits for the PRGS) may, after EPA

approval, be adjusted to correspond to these changes. However, the MES study period must be conducted for a minimum of six months following any physical change in order to obtain monitoring data upon which to evaluate the models.

8. **Monitoring and Comparison Modeling During the Model Evaluation Study**

In accordance with the MES Protocol, as attached, Mirant shall install and operate a total of six (6) ambient SO2 monitors in the preferred locations or alternate locations as described below:

a. Preferred locations

(1). Two monitors on the roof of Marina Towers, with one located on the Southeast wing and one at the center of the building;

(2). One monitor east of the PRGS, approximately due east of Stack 5 on the west bank of the Potomac River;

(3). One monitor southeast of the PRGS, along the facility fenceline, near the River;

(4). One monitor approximately 800 meters north of Marina Towers; and

(5). One monitor on the roof of a building in the Harbor Terrace complex or a property within three blocks of Harbor Terrace, in the urbanized area southwest of the PRGS.

EPA will work with Mirant to assist in obtaining permission needed to install monitors in these preferred locations.

b. Alternate Locations: If EPA determines that notwithstanding Mirant's good faith and reasonable efforts to obtain permission to install monitors in the preferred locations, it is impractical to install some or all of the monitors in the preferred locations in a timely manner because the owner of the preferred monitor location declines to host the SO2 monitor(s) or the preferred location is unavailable or impractical for any other reason, EPA will authorize installation of monitors at some or all of the five alternative SO2 monitor locations set forth in the MES Protocol, as summarized below:

(1) Southwest of the PRGS on the rooftop of Braddock Place;
(2) Approximately 600 meters South-Southeast of the stack locations, at ground level along the Potomac River;
(3) Approximately 300 meters Southwest of the PRGS at ground level;
(4) Approximately 600 meters South-Southwest of the PRGS at ground level; and

(5) Approximately 100 meters SW of the plant at ground level.

c. Deadline for ambient monitor installation: Mirant shall have all six monitors installed and operating within 60 days of the execution of this Order. EPA may, at its own discretion, extend the deadline, and/or change locations, for installation and/or operation of one or all of the monitors and in the event that EPA determines that one of the preferred locations is impractical and authorizes use of an alternate location, Mirant shall have an additional 30 days in which to install that monitor.

d. Operation, Maintenance, and Quality Assurance/Quality Control ("QA/QC") of monitors - It shall be the responsibility of Mirant to ensure that the monitors are operated, maintained, and subject to the appropriate QA/QC provisions set forth at Appendix A to 40 C.F.R. Part 58.

e. Follow-up modeling: The data generated by the monitors shall be used at the end of the study to conduct a model evaluation. Until such time as all the ambient air monitors are installed in accordance with the Monitoring Plan and begin measuring and recording ambient air data, Mirant shall perform "follow up" computer modeling using actual weather conditions and Operating Parameters, and shall report the results to EPA and VaDEQ on a monthly basis, as described below. This "follow-up" modeling will be performed on the Monday following the previous week of operation.

9. **Determination of Best Performing Model at Conclusion of Model Evaluation Study**

At the conclusion of the MES, the performance of the applicable models will be evaluated in accordance with the document "Protocol for Determining the Best Performing Model." EPA-454/R-92-025, Sept. 1992, Comparing Computer Model-Predicted Air Concentrations to Actual Ambient Air Concentrations Measured by the Monitors. The information yielded by the comparison of model predictions to measured ambient concentrations will result in a determination by EPA and VaDEQ as to which model is best-performing. Thereafter, the best-performing model shall be used to conduct computer modeling to develop permanent emission limits at the PRGS.

10. **Reporting**

a. Throughout the period of the MES, Mirant shall deliver to EPA and VaDEQ monthly: (1) the modeled input files and results of the daily Predictive Modeling for the preceding month, including the hourly average heat input in MMBtu for each unit and the exit velocity (or exhaust volume) for each unit; (2) verification that the planned Operating Parameters utilized for Predictive Modeling in the preceding month were not exceeded, or if exceeded, documentation describing that exceedance; (3) the inputs and results of "follow-up" modeling for the preceding month (or portion thereof during which all Monitors were not in place), including the hourly average heat input in MMBtu for each unit and the exit velocity (or

exhaust volume) for each unit, but only until commencement of operation of all Monitors, and; (4) after installation of the Monitors, the data generated by the Monitors.

b. If at any time the "follow-up" modeling demonstrates a modeled exceedance of the NAAQS or the Monitors demonstrate an actual exceedance of the NAAQS, Mirant shall report such modeled or monitored exceedance to EPA and VaDEQ within 3 days of the modeled or monitored exceedance for a determination as to whether corrective action is required.

C. Operation During Line Outage Situations

1. During a Line Outage Situation, Mirant shall operate the PRGS to produce the amount of power needed to meet the load demand in the Central D.C. area, as specified by PJM and in accordance with the DOE Order. During such operations, Mirant shall take all reasonable steps to limit the emissions of PM10, NOX and SO2 from each boiler, including operating only the number of units necessary to meet PJM's directive and optimizing its use of Trona injection to minimize SO2 emissions. During a Line Outage Situation, Mirant shall achieve 80% reduction of SO2 emissions unless: 1) Mirant demonstrates, through predictive modeling or otherwise, that 80% reduction is not necessary to achieve compliance with the NAAQS; or 2) Mirant demonstrates that 80% reduction is not logistically feasible because of factors such as the quantity of available Trona and predicted duration of the outage. In the event that Mirant demonstrates that 80% reduction is not logistically feasible, it shall submit a plan to EPA for optimizing its use of Trona injection so as to maximize SO2 reduction and the plan shall propose control measures and removal efficiencies to be achieved during the Line Outage Situation. If Mirant has 30 days notice in advance of the Line Outage Situation, it shall submit the plan to EPA for approval 15 days before commencement of the Line Outage. If Mirant has less than 30 days advance notice of the Line Outage Situation, Mirant shall submit the plan to EPA for approval as promptly as reasonably possible under the circumstances. It is understood and acknowledged that the plan to be followed for an unscheduled Line Outage Situation will depend upon the specific circumstances at the time of the unscheduled Line Outage Situation. Nothing here shall diminish Mirant's obligation to produce the amount of power needed to meet the load demand in the Central D.C. area, as specified by PJM, and in accordance with DOE's Order.

2. Malfunctions of emission control devices, such as Trona injection, shall not be deemed a failure to limit the emissions during a line outage, provided that Mirant has made reasonable efforts to avoid the malfunction and to promptly correct the malfunction. All emissions during a Line Outage Situation count toward any other permit, statutory, or regulatory limits for the PRGS. Upon Mirant's request, EPA (after consultation with DOE) will provide contemporaneous written confirmation of the existence of a Line Outage Situation. If Mirant operates the PRGS in accordance with dispatch directions from PJM and the relevant terms of this Order during a Line Outage Situation, Mirant shall not be in violation of this Order; or 9 VAC 5-20-180(I), as incorporated into the Virginia SIP at 40 C.F.R. 52.2420(c); nor shall such operation be deemed to give a right for a cause of action for any alleged violation of the

NAAQS as a result of Mirant causing or contributing to any modeled or monitored exceedance of the NAAQS. This release shall only apply to alleged exceedances or violations occurring during the lifetime of the Order or the duration of the MES if the requirements of this Order have been incorporated into a state operating permit; shall only apply to laws in existence on the effective date of the Order; and shall not prevent Virginia from issuing an order under 9 VAC 5-20-180(I) or EPA from taking action under Section 303 of the Clean Air Act.

D. General Provisions

1. At all times, Mirant shall not emit more than 3700 tons of NOx per year and shall limit the emission rate of PM10 to 0.055 lbs/MMBtu.

2. Mirant's actions shall be consistent with all provisions of federal and state law, including but not limited to, the Clean Air Act, all federal regulations promulgated under the Clean Air Act, and any other applicable laws, including the Virginia State Implementation Plan.

E. Permitting Requirements

Within the 12 month period following entry of this Order, Mirant must cooperate with VaDEQ in the development of operating permit emission limits protective of all NAAQS. Mirant agrees that the obligations of this Order, to the extent they have not been completed, may become obligations in the operating permit issued by VaDEQ. Mirant further agrees that during the implementation of this Order, it will prepare and submit to EPA and VaDEQ an analysis of the applicability of NSR/PSD to the PRGS due to the installation of Trona injection and any additional fugitive emissions resulting from that installation.

V. PARTIES BOUND

This Order shall apply to and be binding upon Mirant, its agents, successors, and assigns and upon all persons, contractors and consultants acting under or for Mirant, or persons acting in concert with Mirant who have actual knowledge of this Order or any combination thereof with respect to matters addressed in this Order. No change in ownership or corporate or partnership status will in any way alter Mirant's responsibilities under this Order.

In the event of any change in ownership or control of the PRGS, Mirant shall notify the EPA in writing at least thirty (30) days in advance of such change and shall provide a copy of this Order to the transferee-in-interest of the PRGS, prior to any agreement for transfer.

VI. RESPONSES TO ORDER

Information required to be submitted to EPA under this Order must be sent to:

Chief, Air Enforcement Branch
Air Protection Division,

U.S. Environmental Protection Agency, Region 3
1650 Arch St.
Philadelphia, PA 19103

And

Douglas J. Snyder
Assistant Regional Counsel
Office of Regional Counsel (3RC10)
U.S. Environmental Protection Agency, Region 3
1650 Arch St.
Philadelphia, PA 19103

VII. EFFECT OF COMPLIANCE ORDER

As set forth in Section 113(a)(4) of the Act, 42 U.S.C. § 7413(a)(4), nothing in this Administrative Compliance Order by Consent shall prevent EPA from assessing any penalties, or otherwise affect or limit the United States' authority to enforce other provisions of the Act, or affect any person's obligations to comply with any Section of the Act or with any term or condition of any permit or applicable implementation plan promulgated or approved under the Act. Further, nothing in this Order shall limit or otherwise preclude the United States from taking criminal or additional civil judicial or administrative enforcement action against Mirant or any third parties with regard to the PRGS pursuant to any other federal or state law, regulation or permit condition, or for Mirant's failure to comply with any requirements of this Order. Nothing herein shall be construed to limit the authority of the EPA to undertake action against any person, including Mirant, in response to any condition that EPA determines may present an imminent and substantial endangerment to the public health, public welfare or the environment. EPA reserves any rights and remedies available to it to enforce the provisions of this Order, the Act and its implementing provisions, and of any other federal laws or regulations for which it has jurisdiction following the entry of this Order.

For the purposes of this proceeding only, Mirant hereby expressly waives its right to any appeal of this Order which it may have under Section 307(b) of the CAA, 42 U.S.C. § 7607(b), and waives the right to challenge the terms of this Order in any action taken to enforce this Order pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b).

VIII. ENFORCEMENT

Failure to comply with this Order may result in a judicial or administrative action for appropriate relief, including civil penalties, as provided in Section 113 of the Act, 42 U.S.C. § 7413. EPA retains full authority to enforce the requirements of the Clean Air Act, 42 U.S.C. §§ 7401-7642, and nothing in this Order shall be construed to limit that authority except as otherwise provided herein.

IX. CERTIFICATION OF REPORTS

Any notice, report, certification, data presentation, or other document submitted by Mirant under or pursuant to this Order, which discusses, describes, demonstrates, or supports any finding or makes any representation concerning Mirant's compliance or non-compliance with any requirement(s) of this Order, shall be certified by a responsible corporate official of Mirant. The term "responsible corporate official" means (a) the Chairman or Chief Operating Officer of Mirant, or (b) Vice President of Operations for PRGS.

23. The certification required by the preceding paragraph of this Order shall be in the following form:

> Except as provided below, I certify that the information contained in or accompanying this (type of submission) is true, accurate, and complete. As to (the/those) portion(s) of this (type of submission) for which I cannot personally verify (its/their) accuracy, I certify under the penalty of law that this (type of submission) and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.
>
> Signature:_____
> Name(print):_____

X. EFFECTIVE DATE AND OPPORTUNITY FOR CONFERENCE

24. By signing this Order, Mirant agrees that it has had an opportunity to confer on the terms of this Order with EPA and thereby waives its opportunity pursuant to Section 113(a)(4) to confer further with EPA concerning the violation(s) alleged in the above Order before the Order takes effect. Therefore, this Order shall be effective upon Mirant's receipt of a copy of the Order signed by the Director of the Air Protection Division, Region 3, or her designee. This Order shall expire one year after execution of the Order, in accordance with Section 113(a)(4) of the CAA, unless it is terminated sooner by EPA.

XI. FAILURE TO PERFORM

25. In the event of an inability or anticipated inability on the part of Mirant to perform any of the actions or work required by this Order in the time and manner required herein, Mirant shall notify EPA orally within twenty-four (24) hours of such event (or, if the event occurs on a Friday

or Saturday, Sunday, or legal holiday, no later than the following business day) and in writing as soon as possible, but in no event more than three (3) days after such event. Such notice shall set forth the reason(s) for, and the expected duration of, the inability to perform; the actions taken and to be taken by Mirant to avoid and mitigate the impact of such inability to perform; and the proposed schedule for completing such actions. Such notification shall not relieve Mirant of any obligation of this Order. Mirant shall take all reasonable actions to prevent and minimize any delay.

XII. BUSINESS CONFIDENTIALITY

26. Mirant is entitled to assert a claim of business confidentiality covering all or part of any requested information, in the manner described in 40 C.F.R. § 2.203(b), unless such information is "emission data" as defined in 40 C.F.R. § 2.301(a)(2). Information subject to a claim of business confidentiality will be made available to the public only in accordance with the procedures set forth in 40 C.F.R. Part 2, Subpart B. Unless a confidentiality claim is asserted at the time requested information is provided, EPA may make this information available to the public without further notice to you.

XIII. COPIES OF ADMINISTRATIVE COMPLIANCE ORDER BY CONSENT

A copy of this Order will be sent to James Sydnor, Virginia Department of Environmental Quality.

Dated: June 1, 2006

Judith Katz, Director
Air Protection Division
U.S. Environmental Protection Agency
Region III

The undersigned represents that he or she is a duly authorized representative of Mirant Potomac River, LLC for the purpose of signing this Order, and that Mirant agrees to the terms of this Order.

Dated: June 1, 2006

Robert Driscoll
Chief Operating Officer

APPENDIX 2
Department of Energy (DOE) Order No. 202-05-3 dated December 20, 2005.

United States of America
Department of Energy

District of Columbia Public Service Commission) Docket No. EO-05-01

Order No. 202-05-3

I. Summary

Pursuant to the authority vested in the Secretary of Energy by section 202(c) of the Federal Power Act (FPA), 16 U.S.C. § 824a(c), and section 301(b) of the Department of Energy Organization Act, 42 U.S.C. § 7151(b), and for the reasons set forth below, I hereby determine that an emergency exists due to a shortage of electric energy, a shortage of facilities for the generation of electric energy, a shortage of facilities for the transmission of electric energy and other causes, and that issuance of this order will meet the emergency and serve the public interest. Therefore, Mirant Corporation and its wholly owned subsidiary, Mirant Potomac River, LLC (collectively referred to herein as Mirant), are hereby ordered to generate electricity at their Potomac River Generating Station (the "Plant") pursuant to the terms of this order.

II. Procedural History

On August 19, 2005, Mirant submitted to the Virginia Department of Environmental Quality (DEQ) a computerized emissions modeling study Mirant had conducted of its Plant that indicated that emissions from the Plant caused or contributed to significant localized exceedances of the National Ambient Air Quality Standards (NAAQS).[1] Also on August 19, 2005, DEQ issued a letter to Mirant which requested "that Mirant *immediately* undertake such action as is necessary to ensure protection of human health and the environment, in the area surrounding the Potomac River Generating Station, including the potential reduction of levels of operation, or potential shut down of the facility." (emphasis in original). The letter asked Mirant to provide DEQ with a summary of the actions taken and the progress toward eliminating NAAQS exceedances by August 24, 2005. At midnight on August 21, 2005, Mirant reduced production of all units at the Plant to their minimum load, and at midnight on August 24, 2005, Mirant shut down all five of the generating units at the Plant.

On August 24, 2005, the District of Columbia Public Service Commission (DCPSC) filed an *Emergency Petition and Complaint* with both the United States Department of Energy (DOE or Department) and the Federal Energy Regulatory Commission (FERC or Commission) pursuant to the FPA. The DCPSC requested the Secretary of Energy to find that an emergency exists under section 202(c) of the FPA and to issue an order directing Mirant to continue

[1] The Clean Air Act, 42 U.S.C. § 7401 *et seq.*, authorizes the United States Environmental Protection Agency (EPA) to establish NAAQS, 42 U.S.C. §§ 7408-7409, and states that it is the responsibility of the states and local governments for assuring that they are attained, 42 U.S.C. §§ 7401(a)(3) and 7416.

operation of the Plant. The basis for the petition was that the shutdown of the Plant "...will have a drastic and potentially immediate effect on the electric reliability in the greater Washington, D.C., area and could expose hundreds of thousands of consumers, agencies of the Federal Government and critical federal infrastructure to curtailments of electric service, load shedding and, potentially, blackouts." The DCPSC requested that the Commission issue a similar order under sections 207 and 309 of the FPA. Numerous parties filed interventions and comments in response to DCPSC's emergency petition, as well as subsequent comments and responses.[2] Further, both FERC and DOE issued information requests to Mirant, the Potomac Electric Power Company (PEPCO), the company responsible for supplying electricity to retail customers in the District of Columbia, and PJM Interconnection, LLC (PJM), the grid operator responsible for the administration of the bulk power grid and electricity market in the region.[3] In addition to the DCPSC petition proceedings, DOE has hosted and participated in numerous conference calls and meetings to gather information on the shutdown of the Plant and its effect on the reliability of D.C.'s electricity system.[4]

III. Background

The coal-fired Mirant Plant, which began operation in 1949, is located in Alexandria, Virginia, and is capable of producing 482 megawatts of electricity primarily for delivery to Washington, D.C. The Plant consists of five generating units, two of which are cycling units that range in output from 35 MW to 88 MW, and three of which are baseload units that range in output from 35 MW to 102 MW. It is one of only three sources of electricity that serve the central business district of the District of Columbia, many federal institutions, the Georgetown area in D.C., as well as other portions of Northwest, D.C., and the District of Columbia Water and Sewer Authority's Blue Plains Advanced Water Treatment Plant, the largest wastewater

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[2] Several of these filings were only made in the FERC docket and not in DOE's docket. Even though a number of filers did not submit their comments in the DOE docket, the Department has, in the interest of rendering an appropriate and fully informed determination, reviewed all the filings in the FERC docket for any pertinent facts that will assist the Department in making its decision. Also, to the extent the filings contained analysis or legal arguments pertaining to the Department's 202(c) authority, they have been considered in the Department's decision making process.

[3] The data submitted contained Critical Energy Infrastructure Information and was submitted in both confidential and redacted versions, as defined in FERC's rules at 18 C.F.R. § 388.13. All information contained in this order is from public filings in the DOE and FERC dockets.

[4] The Administrative Procedure Act's prohibitions on ex parte communications in an adjudicatory proceeding, 5 U.S.C. § 557(d)(1), do not apply to DOE's 202(c) proceedings, because section 202(c) explicitly authorizes the Department to issue a 202(c) order "either upon its own motion or upon complaint, with or without notice, hearing, or report. . ." 16 U.S.C. § 824a(c).

treatment plant in the world.[5] The other two sources are two 230 kV lines that deliver electricity from other generating sources in the regional electric grid operated by PJM. Although there are other generating units in close physical proximity to the Central D.C. area, (e.g., the Benning Road and Buzzard Point generating facilities, which are dual-fueled oil and natural gas generating power plants, owned by PEPCO) there are no transmission lines that would allow delivery of power from these other units to reach the Central D.C. area. With regard to the sources of power that serve the Central D.C. area, PEPCO owns and operates the transmission lines, and PJM determines electricity demand.

Although Mirant shut down all of the Plant's generating units on August 24, 2005, it has since restarted unit number one which, the Department understands, is currently operating. Mirant is operating the unit on an 8/8/8 basis --- that is, in any given twenty-four hour period, the unit runs for eight hours at its maximum level of 88 MW, eight hours at its minimum level of 35 MW, and has eight hours when it does not run. DOE has been informed that both EPA and DEQ acknowledge that the operation of this unit in this manner does not result in any NAAQS exceedances. In addition, DOE understands that Mirant is taking other steps to increase production at the Plant in a manner which will be acceptable to DEQ and EPA.

PEPCO has applied to the DCPSC to construct two new 230 kV lines that would supply electricity to the Central D.C. area. In the same application, PEPCO has proposed building two new 69kV lines to supply the Blue Plains wastewater treatment plant. PEPCO proposes having the two 69 kV lines installed by the summer 2006 peak season, and the two 230 kV lines installed in 18 to 24 months. The two existing 230 kV lines that supply the Central D.C. area would need to be temporarily taken out of service sequentially in order to connect the new lines to the Central D.C. area. Once completed, these lines apparently would provide a high level of electric reliability in the Central D.C. area, even in the absence of production from the Plant.

IV. Discussion

A. Reliability Issues

The Department has conducted an independent analysis of the electricity reliability situation in the Central D.C. area and has analyzed the Plant's role in ensuring a sufficiently reliable supply of electricity to that area. DOE's analysis was conducted by the Department's Oak Ridge National Laboratory. Under North American Electric Reliability Council standards, at a minimum, the power system must carry at least enough contingency reserves of electricity to cover the most severe single contingency. The standards require that an area's system always be operated with sufficient reserves to compensate for the sudden failure of the area's most important single generator or transmission line.

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[5] For purposes of this order, the area supplied with electricity by these three sources will be referred to as the "Central D.C. area," and the retail customers in this area will be referred to as the "Central D.C. area customers."

Based on the fact that the Central D.C. area has only three sources of supply, the Plant and the two 230 kV transmission lines, the Department's analysis concludes that in order to maintain a minimally reliable electric power system, the Plant must be available to run when one of the 230 kV lines is out of service, because if the remaining line failed there would be no other source of electricity to serve the Central D.C. area load. In addition, the analysis concludes that if one of the 230 kV lines failed unexpectedly, enough generation must be started as rapidly as possible so as to be able to serve all of the Central D.C. area load as a contingency reserve in the event the other line were to fail. The analysis also indicates that the Plant should be operated in such a way as to minimize the amount of time needed to bring it into production.

PEPCO has asserted that:

> Absent the generating capacity of the Plant, if the two 230 kV transmission circuits into the [Central D.C. area] fail, there will be a blackout in much of the District of Columbia until the circuits are repaired or the Plant's generators are restarted and can operate at a level that matches load. All electric customers in Georgetown, Foggy Bottom and major portions of downtown Washington will be affected. The affected customers will also include Blue Plains wastewater treatment plant. It is PEPCO's understanding that within 24 hours of the loss of electric supply, Blue Plains will have no option but to release untreated sewage directly into the Potomac River, which would result in a significant adverse impact to human health, aquatic wildlife and other environmental resources. Affected customers will also include numerous hospitals, schools, universities, commercial buildings, and residential customers. Importantly, numerous federal facilities will lose power, including those critical to the security, safety, and welfare of the whole country, such as the FBI, the Justice Department, the State Department, the Federal Emergency Management Agency, the Department of the Interior, and the Department of Energy to name but a few.[6]

No commenter has disputed these statements by PEPCO, and they have been generally corroborated by DOE's own independent analysis; therefore, DOE will accept them as correct statements of fact. Further, the 230 kV lines do go out of service on occasion; since 2000, there have been 34 one-line outages for maintenance, and seven occasions where one of the lines has tripped unexpectedly. DOE has been informed that, prior to 2000, there were two occasions when both of the lines failed simultaneously.

B. Environmental Issues

Some commenters have asserted that the renewed operation of the Plant would result in NAAQS exceedances and a violation of the Clean Air Act, and that DOE could not issue a 202(c) order which would contravene the Clean Air Act (42 U.S.C. §§ 7401-7626). In response to this assertion, DCPSC, PEPCO and PJM contend that there were no actual monitored

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[6] *See* Potomac Electric Power Company's Leave to Answer and Answer to Comments, FERC Docket No. EL05-145-000 at pages 2 & 3 (September 9, 2005).

exceedances of the NAAQS at the Plant during operation, and that operation of the plant at full power does not exceed the emissions limits contained in the Plant's operating permit and therefore the operation of the Plant pursuant to a DOE order would not violate the Clean Air Act. EPA has shared information with DOE regarding NAAQS modeled results and other environmental issues at the Plant. In response to the environmental concerns raised, this order seeks to minimize, to the extent reasonable, any adverse environmental impacts. Should EPA issue a compliance order directed to operation of the Plant, DOE will consider whether and how this order should conformed to such order.

Another assertion raised is that DOE cannot issue an order without complying with the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 *et seq.* Responders to that assertion stated that NEPA review requirements do not apply because any order would merely require the Plant to operate in the manner and at the level it has historically operated, and thus is not a "major federal action" triggering NEPA. In addition, responders assert that "...the emergency nature of the relief sought in this case permits the [the Secretary] to act without conducting a NEPA analysis, even if it were required."[7] DOE has determined that the emergency circumstances here make it necessary to take action without performing a NEPA analysis. Indeed, in order for an order under FPA section 202(c) to be issued at all, the Secretary of Energy must determine that an emergency exists, and I have made that determination here. DOE has consulted with CEQ about alternative arrangements pursuant to 40 C.F.R. § 1506.11.

C. Other Issues

Commenters opposed to the issuance of a FPA section 202(c) order cited *Richmond Power & Light v. FERC*, 574 F. 2d 610 (D.C. Cir. 1978) as imposing a limit on the Secretary's authority to make an emergency finding under section 202(c). In *Richmond*, the New England Power Pool (NEPOOL) petitioned the Federal Power Commission (the Secretary's predecessor in exercising section 202(c) authority) for an order pursuant to FPA section 202(c) to have utilities east of the Mississippi River with excess electric generating capacity supply NEPOOL with that excess capacity. The request was based on fears of an oil shortage due to the 1973 Arab oil embargo. The Commission responded by holding a conference and a series of meetings which resulted in an agreement among the purchasing, transmitting and supplying utilities and participating state regulatory commissions. As a result of the agreement, NEPOOL moved to withdraw its petition, which the Commission allowed. Richmond Power & Light Company challenged the decision to allow the withdrawal and the court found that the Commission did not abuse its discretion in declining to issue an order under section 202(c), but rather settling on the temporary-voluntary agreement program reached by the interested parties. Instead of limiting its

[7] District of Columbia Public Service Commission Answer to Motion of the Virginia Department of Environmental Quality at page 24 (October 26, 2005), FERC Docket No. EL05-145-000. *See also* Answer of Potomac Electric Power Company and PJM Interconnection, LLC at page 18, (October13, 2005), FERC Docket No. EL01-145-000.

reach, *Richmond* underscores the discretionary nature of the Secretary's authority under section 202(c).[8]

Another case asserted to limit the Secretary's authority to issue an order under section 202(c) was *National Fuel Gas Supply v. FERC*, 909 F2d 1519 (D.C. Cir. 1990). In that case, National Fuel applied under section 7 of the Natural Gas Act (NGA), 15 U.S.C. § 717 *et seq.*, for a certificate of public convenience and necessity to allow it to make interruptible sales of natural gas. The Commission imposed a condition that National Fuel accept a blanket transportation certificate to provide open access transportation. The court ruled that the Commission was improperly using a NGA section 7 certificate condition in place of an individual or generic proceeding under section 5 of the NGA. The Department does not see the relevance of *National Fuel* here. I am using section 202(c) of the FPA for precisely the type of situation contemplated by section 202(c) of the FPA.

V. Decision

Section 202(c) of the FPA vests in the Secretary of Energy the authority to issue an order when "an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy, or of the fuel or water for generating facilities, or other causes...." 16 U.S.C. § 824a(c). DOE's regulations acknowledge that "[e]xtended periods of insufficient power supply as a result of inadequate planning or the failure to construct necessary facilities can result in an emergency as contemplated by these regulations." 10 C.F.R. § 205.371.

I find that in the circumstances presented here, an emergency exists that justifies the issuance of a section 202(c) order. My determination is not based on any single factor, but on the combination of all relevant facts and circumstances. In particular, I find that an emergency exists because of the reasonable possibility an outage will occur that would cause a blackout, the number and importance of facilities and operations in our Nation's Capital that would be potentially affected by such a blackout, the extended number of hours of any blackout that might in fact occur, and the fact that the current situation violates applicable reliability standards.

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[8] The facts in *Richmond* and in the current situation are very different. *Richmond* dealt with a wide regional or even national energy shortage situation, while we are considering electricity reliability in a discrete geographic area. The facts here more closely resemble those considered by the Federal Power Commission in *City of Cleveland, Ohio v. Cleveland Electric Illuminating Company*, 47 FPC 747 (1972). In that case, the City of Cleveland petitioned the Commission pursuant to section 202(c) to order an interconnection with Cleveland Electric Illuminating Company to provide services during shortages caused by outages of the City of Cleveland's generating facilities, or delays getting generation on line. The Commission found that the City of Cleveland had an emergency due to periodic shortages of generating facilities caused by outages and ordered the establishment of a 69kV temporary emergency interconnection between the electric systems of the City and Cleveland Electric Illuminating. Similarly, here DOE is ordering the Plant to provide electricity in certain limited situations.

More specifically, if the Mirant plant is not available to generate electricity and one of the two transmission lines serving the Central D.C. area goes out of service, the Central D.C. area would be served by only one transmission line. Should that remaining line fail for any reason, a blackout would occur in the Central D.C. area, potentially for an extended period of time. In fact, if one or both of the transmission lines could not be brought back into service immediately and the only source of energy for the Central D.C. area was the Mirant Plant, in the absence of today's order it would take several hours at a minimum to bring the Plant into full operation.

The outage of one of these two lines is not merely a theortetical possibility. On Friday, December 16, 2005, PJM informed DOE that on the previous night, "one of the two circuits critical to providing service to the District tripped. Continued [electric] service to certain load within the District was at that time entirely dependent on the remaining circuit." As a result, PJM requested dispatch of a second generating unit at the Plant, but Mirant refused to do so. PJM informed DOE that "service was not interrupted because load was low and the remaining circuit performed without incident." Fortunately, full service to the line that had tripped was restored by the morning of December 16. Nonetheless, there can be no assurance that the Central D.C. area will be so lucky next time, either with respect to the timing of the event, the operation of the second transmission line, or the ability to bring the first transmission line back into service.

Furthermore, it is periodically necessary for an outage to occur on one of the transmission lines because of the need to perform maintenance. In fact, maintenance is scheduled on one of the lines in the next few weeks. Thus, as occurred on the night of December 15, 2005 and as will certainly occur again in the future, if the Mirant Plant is not made operational Central D.C. will find itself relying solely on one transmission line. The duration of an outage can range from up to several days (for maintenance) or even longer (up to weeks) if the outage of a line is due to a major equipment failure. Throughout such a period, if the Plant is not fully operational a blackout in Central D.C. is only one step away, i.e., if an event should occur that causes the second line to fail. Such a blackout could last for hours or days.

I recognize that, if past experience is any guide, the simultaneous failure or outage of both transmission lines serving the Central D.C. area is not a high probability. While this event has occurred in the past, it has not happened often. Moreover, the recent tripping of one circuit does not in itself dictate the existence of an emergency justifying issuance of a 202(c) order.

The facilities and functions that would be adversely affected by an extended blackout in this instance, however, is an important consideration. The Central D.C. area includes offices, facilities and operations involved in all three branches of government, and that are critically important to the Nation's national security, law enforcement and regulatory functions. The Central D.C. area also includes hundreds of thousands of residents and workers, and all manner of public safety and protection facilities, including hospitals, police, and fire facilities. Moreover, DOE has been informed that within 24 hours of a blackout in the Central D.C. area, untreated sewage from the Blue Plains Wastewater Treatment plant would be discharged into the Potomac River.

Finally, it is noteworthy that a blackout in the Central D.C. area not only would affect critically important facilities and operations, it could last for an extended period. Depending on the reason for the outage of the transmission lines, the lack of service on those lines accompanied by the lack of generation by the Plant could result in a large portion of the District of Columbia being without electricity for a period that could last hours or days. At the very least, if the two transmission lines were made unavailable with no advance notice and the only source of electricity for the Central D.C. area was the Mirant plant, in the absence of today's order DOE understands it would take at least 28 hours, and likely longer, to bring the Plant into full operation, during which time all or a substantial part of the Central D.C. area would be without electric power The results would be hardship and physical risk to hundreds of thousands of persons from loss of heat, elevator outages, medical equipment failure and numerous other causes. In addition, critical portions of the nation's government would also be severely impacted, with resulting adverse effects on a national scale.

Of course, the fact that the Department did not act immediately on the DCPCS petition does not argue against my finding that an emergency currently exists. After the petition was filed, DOE took several weeks to gather the relevant information, consider the facts, talk with environmental regulatory authorities, and develop an order that balanced the appropriate considerations. As explained in the text of this order, the current facts fully justify my finding that an emergency exists and that this order will meet that emergency. There certainly is nothing in the Federal Power Act that requires me to wait until a blackout actually has occurred, lives are put in jeopardy, and a significant disruption of National government functions already has happened before exercising my section 202(c) authority.

Accordingly, and based on all of the facts and circumstances, I find that an emergency exists justifying the issuance of this order under Federal Power Act section 202(c).

After finding the existence of an emergency, DOE has the authority, "either upon its own motion or upon complaint, with or without notice, hearing, or report, to order such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in its judgment will best meet the emergency and serve the public interest." 16 U.S.C. § 824a(c). The statute gives the Secretary of Energy broad discretion to fashion the terms of an order that will, in the Secretary's judgment, "best meet the emergency and serve the public interest." Based on the circumstances described above in this order, I hereby direct Mirant to generate electricity at the Plant pursuant to the terms of this order.

While I am issuing this order to help ensure a reliable supply of electric energy to the Central D.C. area, I am cognizant of the concerns that have been expressed concerning the potential adverse environmental consequences of operating the Plant, and of the national interest in attainment of the NAAQS that have been established under the Clean Air Act. Ordering action that may result in even local exceedances of the NAAQS is not a step to be taken lightly. However, it would not be reasonable for the Department of Energy to stand by and take no positive action on the DCPSC petition, even though the Central D.C. area is in danger of an extended blackout and the Department and private parties have available to them the legal and operational tools to prevent such a blackout from occurring. In this order, I have sought to harmonize those interests to the extent reasonable and feasible by ordering Mirant to operate in a

manner that provides reasonable electric reliability, but that also minimizes any adverse environmental consequences from operation of the Plant.

DOE expects that the DCPSC, having sought an emergency order, will take such actions as are within its authority to provide adequate and reliable electric service for the Central D.C. area including, for example, expediting approval of PEPCO transmission system upgrades and instituting demand response programs.[9] Indeed, DOE views this order not as a permanent solution to the Central D.C. area's reliability issues, but rather as a bridge between the current untenable situation and a more permanent solution that must be crafted by appropriate parties, including the DCPCS, FERC, environmental regulatory authorities, and relevant private sector parties. This permanent solution may include the installation of the new transmission lines discussed above, the installation of new pollution control equipment at the Mirant Plant, or other means.

As explained above, in the event that one of the two transmission lines that serve the Central D.C. area is out of service (due either to a necessary planned outage or to unforeseen events) and sufficient electricity from the Mirant power plant were not available, then the Central D.C. area would experience an immediate blackout should the one remaining source of electricity fail. This situation must be avoided, and ordering paragraph A of this order ensures that this situation will be avoided. When an outage is planned, Mirant is to be given advance notice and is required to supply necessary generation throughout the period of the outage.[10] In the event of an unexpected outage, Mirant must provide such generation as soon as possible. In the very unlikely eventuality of both transmission lines failing at the same time, Mirant is required to provide sufficient generation to supply the electrical demands of the affected area as soon as possible.

It is essential to determine the level of operation and other steps that will enable Mirant to rapidly respond to an unplanned transmission line outage. Some commenters have urged the Department to order the Plant to run continuously, even if doing so causes ongoing exceedances of the NAAQS. This would assure a high level of reliability of the electricity supply, but of course would not be tailored to particular circumstances in which operation of the Plant would be most necessary to provide needed reliability for the Central D.C. area and might also cause local air quality concerns. Other commenters have urged the Department to do nothing.

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[9] Demand response programs prompt electricity customers to reduce demand, especially during periods of short supply.

[10] In making certain portions of this order effective only upon notice to Mirant by PEPCO of a planned or unplanned outage of one or both of the 230 kV lines, it is similar to the FPA section 202(c) orders issued during the 2000/2001 California energy crisis. In those, DOE ordered certain entities to generate, deliver, interchange and transmit electricity to the California Independent System Operator (California ISO), but the entities were not required to deliver energy or services unless the California ISO had filed with DOE a certificate that it had been unable to acquire adequate supplies of electricity in the market. *See* Order pursuant to Section 202(c) of the Federal Power Act (December 14, 2000); Order Pursuant to Section 202(c) of the Federal Power Act (January 11, 2001).

The Department is not prepared to order actions that could cause more localized NAAQS exceedances than are necessary in order to assure adequate electric reliability for the Central D.C. area. At the same time, the Department should address the risks that delays in responding to an unplanned transmission line outage would present if measures are available to mitigate that risk. In my judgment, the appropriate balance is struck by (1) requiring Mirant to keep as many units in operation, and take all other measures to reduce the start-up time of units not in operation, for the purpose of providing electrical reliability, as feasible (as further defined in the ordering paragraphs below). Thus, Mirant must take actions to reduce the time it takes to respond to an unplanned outage. This will serve to reduce the risk of a blackout but not at the price of unnecessary exceedances of health-based NAAQS. As Mirant improves its environmental performance, in cooperation with environmental regulators, its ability to react to an unforeseen outage also will improve. Environmental regulators and Mirant can work together, with the Department, to reduce, and perhaps eliminate, any conflict between environmental goals and electric reliability.

This order is effective immediately and will terminate at 12:01 a.m. October 1, 2006. This order may be modified or extended at any time upon order of the Secretary of Energy.

VI. Ordering Paragraphs

For the reasons set forth above, pursuant to section 202(c) of the Federal Power Act, it is hereby ordered that:

A. During any period in which one or both of the 230kV lines serving the Central D.C. area is out of service, whether planned or unplanned, Mirant will operate the Potomac River Generating Plant to produce the amount of power (up to its full capacity) needed to meet demand in the Central D.C. area as specified by PJM for the duration of the outage.

In the event of a planned outage, Potomac River units will generate that amount of electricity specified by PJM to meet demand.

In the event of an unplanned 230 kV line outage, Potomac River units will generate that amount of electricity specified by PJM to meet demand as soon as possible.

When producing electricity pursuant to this paragraph, Mirant shall utilize pollution control equipment and measures to the maximum extent possible to minimize the magnitude and duration of any exceedance of the NAAQS.

B. Mirant shall keep as many units in operation, and shall take all other measures to reduce the start-up time of units not in operation, for the purpose of providing electricity reliability, as "feasible." For purposes of this paragraph, "feasible" means as determined by the Department of Energy, after consideration of the plan submitted by Mirant pursuant to paragraph D of this order and after consultation with the Environmental Protection Agency, without regard to cost and without causing or significantly contributing to any exceedance of the NAAQS.

C. Notice

In instances of scheduled outages of one of the 230kV lines, PEPCO will give advance notice of the planned outage and the estimated duration of such outage to Mirant, PJM, DOE, FERC, EPA, and DEQ. The notice must be sufficiently in advance of the outage to allow Mirant to bring the required amount of generation needed for reliability purposes on line by the time the outage is scheduled. PEPCO will ensure that only those planned outages needed to maintain or enhance the reliability of the 230 kV lines (or to install new lines) are scheduled and that such outages are scheduled to minimize the environmental effects of the operation of the Plant.

PEPCO will notify DOE, PJM, FERC, EPA, and DEQ of any unplanned outage of one or both of the 230 kV lines as soon as possible, but in no event later than two hours after informing Mirant.

In the event of either a planned or unplanned outage, PJM will specify the amount of electricity that Mirant must provide in order to meet demand.

D. Mirant shall submit a plan to DOE, within 10 days of the date of this order, detailing the steps it will take to ensure compliance with this order. This compliance plan shall include, at minimum, information regarding adequate staffing, materials, and supplies; emissions controls; and length of time necessary to start-up the Plant's generating units in the event of an unplanned or planned outage. DOE will review the compliance plan and order additional requirements if necessary.

E. Pursuant to the terms of FPA section 202(c) and DOE regulations at 10 C.F.R. § 205.376, Mirant and its customers should agree to mutually satisfactory terms for any costs incurred by Mirant under this order. If no agreement can be reached, just and reasonable terms shall be established by a supplemental order.

F. DOE expects that the DCPSC will take all reasonable actions to augment electrical reliability and to reduce electricity demand in the Central D.C. area.

G. DOE will periodically reexamine the need for this order with particular emphasis on: (1) Mirant's progress, working with environmental regulators, in reducing emissions and/or the impact of emissions; and (2) whether the DCPSC is taking all reasonable actions available to it to support electricity reliability in the Central D.C. area.

H. Pursuant to section 313 of the Federal Power Act (16 U.S.C. § 8251), any person, State, municipality, or State commission that is a party to this proceeding and is aggrieved by this order may apply for a rehearing within thirty days. Requests for rehearing may be submitted by mail, facsimile, or electronic mail to the following: (1) mail should be directed to Lawrence Mansueti of the Permitting, Siting, and Analysis Division of the Office of Electricity Delivery and Energy Reliability at the United States Department of Energy, Routing Symbol OE-20, 1000

Independence Avenue, S.W., Washington, D.C. 20585; (2) facsimiles may be submitted to 202-586-5860; (3) e-mail may be submitted to Lawrence.Mansueti@hq.doe.gov.

Issued in Washington, D.C. at 1:45 PM this 20th day of December, 2005.

Samuel W. Bodman
Secretary of Energy

Appendix 3
U.S. Department of Energy (DOE) Order No. 202-07-2 dated January 31, 2007.

Department of Energy
Washington, DC 20585

District of Columbia Public Service Commission) Docket No. EO-05-01

Order No. 202-07-2

I. Background

On December 20, 2005, in Order No. 202-05-3, I determined that an emergency existed in the Central District of Columbia area due to a shortage of electric energy, a shortage of facilities for the generation of electric energy, a shortage of facilities for the transmission of electric energy and other causes, and that issuance of an order would serve to alleviate the emergency and serve the public interest. Therefore, pursuant to the authority vested in the Secretary of Energy by section 202(c) of the Federal Power Act (FPA), 16 U.S.C. 824a(c), and section 301(b) of the Department of Energy (DOE) Organization Act, 42 U.S.C. 7151(b), and for the reasons set forth in Order No. 202-05-3, I ordered Mirant Corporation and its wholly owned subsidiary, Mirant Potomac River, LLC (Mirant), to generate electricity at its Potomac River Generating Station (the Plant) in Alexandria, Virginia, pursuant to the terms of the order.

In Order No. 202-05-3, I noted that the Plant is one of only three sources of electricity that serve the central business district of Washington, D.C., many federal institutions, and the Georgetown area, as well as other portions of Northwest D.C., and the District of Columbia Water and Sewer Authority's Blue Plains Advanced Water Treatment Plant (Central D.C. area). The order further noted that:

> PEPCO has applied to the [District of Columbia Public Service Commission] to construct two new 230 kV lines that would supply electricity to the Central D.C. area. In the same application, PEPCO has proposed building two new 69kV lines to supply the Blue Plains wastewater treatment plant. PEPCO proposes having the two 69 kV lines installed by the summer 2006 peak season, and the two 230 kV lines installed in 18 to 24 months. The two existing 230 kV lines that supply the Central D.C. area would need to be temporarily taken out of service sequentially in order to connect the new lines to the Central D.C. area. Once completed, these lines apparently would provide a high level of electric reliability in the Central D.C. area, even in the absence of production from the Plant.

The two 69 kV lines to the Blue Plains wastewater treatment plant have been completed and the two new 230 kV lines have been approved by the relevant regulatory authorities and are scheduled to be completed and in operation by June of this year.

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On January 18, 2006, DOE issued a notice of the emergency order (published in the Federal Register on January 20, 2006, 71 FR 3279) in which it committed to preparing a Special Environmental Analysis (SEA) pursuant to the Council on Environmental Quality's Regulations Implementing the Procedural Requirements of the National Environmental Policy Act of 1969 (NEPA), 40 C.F.R. 1506.11. The SEA would examine the potential impacts of the operation of the Plant pursuant to Order No. 202-05-3. DOE stated it would make the SEA publicly available and would consider information contained in the SEA, and public comments on the SEA, in any future decision making regarding the operation of the Plant. The SEA was issued on November 22, 2006, with comments due by January 8, 2007.

Order No. 202-05-3's original expiration date was October 1, 2006. Because the reliability problems identified in Order No. 202-05-3 continued in the absence of the completion of the two new 230 kV lines, and because the SEA had not yet been completed, I issued two short-term extensions of the emergency order pending my consideration of the SEA and review of comments thereon. The first extension, Order No. 202-06-2, was issued on September 28, 2006 with an expiration date of December 1, 2006. The second extension, Order No. 202-07-1, was issued on November 22, 2006, and expires February 1, 2007.

Order No. 202-05-3 directed Mirant to operate the Plant during any period in which one or both of the 230 kV lines serving the Central D.C. area are out of service (Line Outage Situations), whether planned or unplanned, at the level needed (up to full capacity) to meet the electricity demand in the Central D.C. area as specified by PJM Interconnection, LLC (PJM). At all other times (Non-Line Outage Situations), Mirant was ordered to keep as many generation units at the Plant operational, and take measures to reduce the start-up time of units not in operation, as feasible without causing or significantly contributing to any exceedances of National Ambient Air Quality Standards (NAAQS).

Order No. 202-05-3 required Mirant to submit a plan detailing the steps it would take to comply with the order. On December 30, 2006, Mirant submitted a compliance plan to DOE which contained two operating options, Options A and B. In a letter order dated January 4, 2006, DOE instructed Mirant to implement Option A on an interim basis but noted that the two options proposed by Mirant were not the only possible compliance options that could be developed.

On June 1, 2006, the United States Environmental Protection Agency (EPA) issued an Administrative Compliance Order (ACO) pursuant to Section 113(a)(1) of the Clean Air Act (the "Act"), 42 U.S.C. § 7413(a)(1). The ACO provided, in part, for Mirant to operate the Plant, during Non-Line Outage Situations, in a manner that does not cause or contribute to modeled NAAQS exceedances by using "daily predictive modeling." The ACO also required Mirant to conduct a Model Evaluation Study. In a June 2, 2006, letter order to Mirant, DOE stated:

> DOE has determined that the operation of the Plant under Option A pursuant to DOE's January 4, 2006 instructions does not provide an adequate level of electric reliability to the Central D.C. area under current circumstances. Operation pursuant to the ACO, in particular under the Model Evaluation Study, is necessary in order for Mirant to comply with the Secretary's December 20, 2005 Order, and to assure an adequate level of electric reliability under the circumstances. The ability of the Plant to be prepared to rapidly respond to Line Outage Situations will remain critical to reliability in the Central D.C. area until such time as Potomac Electric Power Company's two new 230 kV transmission lines are completed, which is anticipated to be in June 2007.

On November 21, 2006, the District of Columbia Public Service Commission (DCPSC) filed a request for a further extension of Order No. 202-05-3 until PEPCO's transmission upgrades "become operational, or such other date when the electric power supply situation in the Nation's Capital is deemed to be secure." DCPSC amended its November 21, 2006, request for an extension of Order No. 202-05-3 in the filing it made in response to the SEA.

II. The SEA and Response to Comments

The SEA covers a period of 24 months beginning in December 2005, and assesses impacts resulting from the DOE Orders and from potential future alternative actions DOE could take in this emergency matter. Because operation at the Plant has changed over time, pursuant to the DOE Orders and the ACO, the SEA examines several different operating modes of the Plant. As a result, the SEA does not make any single conclusion, but instead assesses impacts for different time periods and different conditions. The SEA assesses impacts associated with air emissions, health, water quality, ecological resources, waste management, transportation, and environmental justice.

The SEA discusses potential mitigation measures that DOE could consider imposing if the emergency order were extended or renewed. They include: (1) requiring Mirant to improve Plant operations and pollution control measures, (2) requiring Mirant to reduce exposure to pollutants to workers and nearby residents, (3) managing the demand for electricity in the Central D.C. area, (4) using alternative sources of generating electricity, and (5) expediting the installation of additional transmission lines.

DOE received comments on the SEA from the Potomac Electric Power Company (PEPCO), the DCPSC, the City of Alexandria, Virginia, the Institute of Public Representation (IPR) (on behalf of the Potomac Riverkeepers, Inc., the Patuxent Riverkeeper, and the Anacostia Riverkeeper at Earth Conservation Corps), the Virginia Chapter of the Sierra Club, Julie Crenshaw Van Fleet, and Elizabeth C. Chimento.

These commenters expressed concern about the following broad categories of issues:

- The accuracy and appropriateness of DOE's assumptions and methodology in assessing impacts in the SEA. Specifically, several commenters claim that the SEA underestimates emissions of sulfur dioxide (SO_2) and particulate matter with a diameter of 10 micrometers or less (PM_{10}), fails to independently assess impacts, differs from findings of a report performed on behalf of the City of Alexandria by AERO Engineering, and uses a spatial distribution for modeling that is too wide.

- Inadequate assessment of impacts of fine particulate matter ($PM_{2.5}$) on human health, including assertions that the SEA used inappropriate assumptions to analyze $PM_{2.5}$, and that daily predictive modeling under the ACO should include $PM_{2.5}$.

- Inadequate assessment of hazardous air pollutants (HAPs), bacteria in the Plant's effluent discharge into the Potomac River, and health effects of trona use.

- Questions concerning the need for the Plant to operate to achieve full power in Line Outage situations, and the need for the Order after the new 230 kV lines are operational.

- Further consideration of mitigation measures.

I have considered these comments. However, I continue to believe that DOE has used reasonable assumptions, methodology, and data to assess impacts from the Plant's operation. I recognize that the assumptions and data used for modeling in the SEA are not the only way to assess impacts from Plant operations. In the SEA, DOE discussed at length the uncertainties associated with respect to impacts of the Plant's operation, and the reasons for the approach used in the SEA. While commenters suggest that DOE should have used different assumptions, methodologies, and data in assessing impacts of the Plant's operations, the fact is, each of the commenters' suggestions comes with its own set of uncertainties. The existence of multiple approaches to assessing impacts from the Plant does not mean that DOE's approach is inaccurate or inappropriate, and the commenters have not demonstrated that their suggested alternative approaches are superior to the approach taken in the SEA.

The nature of an impact analysis for NEPA purposes is to provide Federal decision makers with an overall understanding of the range of impacts of their actions and to identify appropriate means to mitigate adverse impacts. A precise empirical analysis of the effects of the DOE action would require consideration of a myriad of factors and a highly complex, speculative analysis of the interaction among them. Such a detailed calculation may be appropriate in other contexts but is outside the scope of an impact analysis.

DOE has carefully considered the comments on the SEA and discussed those comments with EPA. Based on DOE's own review of the comments, and the discussions with EPA, I believe that DOE has used a reasonable set of assumptions, sound methodology, and an

appropriate level of detail in preparing the SEA in the context of the existing situation, and in light of the purpose of NEPA.

III. Decision

A. The Existence of an Emergency

The reliability situation in the Central D.C. area has improved somewhat since 2005 when DOE reviewed DCPSC's request for an emergency order under section 202(c) of the FPA. As outlined in the DCPSC's January 8, 2007, filing on the SEA, a pilot demand response program is underway, and further initiatives are being considered. In addition, the Blue Plains water treatment plant now has an additional source of electricity. However, the fundamental problem identified in Order No. 202-05-3 remains the same: the Plant is one of only three electric generation sources serving the Central D.C. area. As was stated in the December 20, 2005 order:

> More specifically, if the Mirant plant is not available to generate electricity and one of the two transmission lines serving the Central D.C. area goes out of service, the Central D.C. area would be served by only one transmission line. Should that remaining line fail for any reason, a blackout would occur in the Central D.C. area, potentially for an extended period of time.

Therefore, for the reasons detailed at length in Order No. 202-05-3, and reiterated in Order Nos. 202-06-2 and 202-07-1, I find that an emergency continues to exist due to a shortage of electric energy, a shortage of facilities for the generation of electric energy, a shortage of facilities for the transmission of electric energy and other causes, and that issuance of this order would serve to alleviate the emergency and serve the public interest. As a result, operation of the Plant will continue to be required under FPA section 202(c) to address this emergency, also for the same reasons detailed in the earlier Orders. I now must determine whether any mitigation measures are appropriate, in light of the SEA and public comments on the SEA.

B. Mitigation Measures

The first potential mitigation measure discussed in the SEA is to require Mirant to improve Plant operations and pollution control measures. Order No. 202-05-3 required Mirant, during Line Outage Situations to "utilize pollution control equipment and measures to the maximum extend possible to minimize the magnitude and duration of any exceedances of the NAAQS." Since the issuance of Order No. 202-05-3, Mirant has worked with DOE and EPA to maximize the readiness of the Plant to respond to a Line Outage Situation while avoiding NAAQS exceedances. The ACO contains detailed provisions designed to protect air quality. DOE believes that imposing additional pollution mitigation measures, such as increasing use or storage of trona, is not necessary. Should the ACO expire before expiration of this Order, DOE will consider requiring Mirant to continue to comply with the provisions of the ACO to ensure maximum environmental protection through the term of this Order.

The second potential mitigation measure discussed in the SEA is to require Mirant to reduce exposure to pollutants to workers and nearby residents. This includes the idea that DOE consult with EPA about the need for PM monitoring. DOE understands from EPA that both EPA and the Virginia Department of Environmental Quality (DEQ) are working on the issue of particulate matter emissions from the Plant. This potential mitigation measure also includes the proposal that DOE post on its website dedicated to this proceeding (http://www.oe.energy.gov/permitting/372.htm) Mirant's monthly report to EPA, as required by the ACO. DOE has posted the November and December, 2006, monthly reports on the DOE website and will continue to post Mirant's monthly reports to EPA.

The SEA also discusses expanding the list of persons that PEPCO must inform of Line Outage Situations. Several of the commenters on the SEA also request better notification. Order No. 202-05-3 required PEPCO to give advance notice of planned outages, and notice of unplanned outages as soon as possible, to Mirant, DOE, EPA, PJM, the Federal Energy Regulatory Commission (FERC), and DEQ. In addition, PEPCO's notices have been posted on DOE's website dedicated to this proceeding. DOE required this so that all interested governmental agencies and other persons would be fully apprised of Line Outage Situations. However, to address the concerns raised by the commenters, DOE will order PEPCO to notify the originally listed persons, as well as the Virginia Attorney General's Office, and the City of Alexandria's attorneys, of planned outages and of unplanned line outages. DOE believes this will provide sufficient notification to interested persons and will not require other means, such as newspaper, e-mail distribution, sirens, or radio/television announcements of Line Outage Situations.

This potential mitigation measure also discussed the possible requirement that when the Plant is operated at levels which show modeled NAAQS exceedances, Mirant pay the reasonable expenses of relocating affected persons. Several of the commenters supported relocation as a potential mitigation measure. However, based on the Plant's operation during the Line Outage Situation in December of 2006, DOE does not believe this mitigation measure is necessary. The Plant was in a Line Outage Situation for approximately three weeks in December, 2006. According to information supplied by EPA, during that time Mirant, while operating all five of its generation units, modeled slight NAAQS exceedances on December 4 and 8. Follow-up modeling with data from certain monitoring sites (pursuant to the ACO) indicated 3 hour and/or 24 SO2 NAAQS exceedances on the following five days: December 4, 6, 7, 8 and 17. However, during the Dec 1 through 17, 2006 timeframe, all of the data from the six SO2 monitoring stations around the Plant, as required by the ACO, showed continuous NAAQS compliance. Even on the days during which the follow-up modeling showed potential NAAQS exceedances at certain monitor sites, there were never any actual exceedances demonstrated by any monitors. It is also noteworthy that on January 4, 2007, the U.S. Department of Health and Human Services' Agency for Toxic Substances and Disease Registry issued a letter to the Alexandria Health Department stating that "because of the uncertainty in the air dispersal model and the need to collect additional monitoring data, we cannot determine at this time if a public health hazard exists." These facts alone

indicate that there is an insufficient basis to require Mirant to pay for relocation of residents during Line Outage Situations.

The third potential mitigation measure discussed in the SEA concerns a demand response plan to reduce the demand for electricity in the Central D.C. area. Order No. 202-05-3 stated that "DOE expects that DCPSC, having sought an emergency order, will take such actions as are within its authority to provide adequate and reliable electric service for the Central D.C. area including, for example, expediting approval of PEPCO transmission system upgrades and instituting demand response programs." DCPSC, as outlined in its January 8, 2007, filing with DOE, has undertaken a number of demand response programs and initiatives over the past 10 months, including establishing a Demand Response Working Group, approving "smart meter" installation for the SmartPowerDC program, and soliciting comments from the public on how to address demand response issues in DCPSC proceedings. In today's order, DOE reiterates the expectation that DCPSC will continue to take such actions as are within its authority to institute demand response programs. DCPSC has expeditiously approved PEPCO's proposed electric transmission upgrades. DOE believes that no additional DOE-imposed requirements in this area are necessary or appropriate at this time.[1]

The fourth potential mitigation measure discussed the consideration of alternative electricity generation sources. With the limited time between the date of this order and the date the two new 230 kV transmission lines are scheduled to become operational - only about five months - DOE does not believe this mitigation measure to be practical.

The fifth and final potential mitigation measure discussed in the SEA is expediting the installation of additional transmission lines. The two new 230 kV transmission lines that PEPCO proposed to alleviate the reliability situation in the Central D.C. area are under construction and on schedule. DOE has monitored the progress of these lines and will continue to do so in the future.

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[1] In its January 8, 2007, filing in response to the SEA, DCPSC questioned whether section 202(c) of the FPA "permits the Secretary to 'require' DCPSC to develop a plan for reducing electric demand in the Central D.C. area." While section 202(c) of the FPA authorizes the Secretary to order the generation, delivery, interchange or transmission of electricity, the Secretary can and has conditioned such orders on certain specific action by the person requesting the emergency order. For example, in the FPA section 202(c) orders issued in connection with the California electricity crisis in late 2000 and early 2001, the electric generators which had been ordered to supply electricity to the California Independent System Operator (CAISO) were not obligated to do so until CAISO had filed a signed certification to DOE that CAISO had been unable to acquire in the market adequate supplies of electricity to meet system demand. See Order Pursuant to Section 202(c) of the Federal Power Act (December 14, 2000). This condition precedent was expanded in the January 5, 2001, Amendment No. 3 to the Order Pursuant to Section 202(c) of the Federal Power Act, by adding a requirement that CAISO could not submit the certification described above unless it had submitted to DOE "a certification by a responsible official of the State of California that the state has initiated a program to reduce peak load electricity consumption by at least 5%."

C. Additional Issues

In its January 8, 2007 filing, DCPSC requested that Order No. 202-05-3 be extended and that it not terminate once the two new 230 kV transmission lines become operational. DCPSC stated that: "it is not definitive that some or all of the emergency measures provided in the December 20 Order would automatically become unnecessary once the 230 kV lines have been constructed." In Order No. 202-05-3, DOE stated that "once completed, [the new 230 kV transmission lines] apparently would provide a high level of electric reliability in the Central D.C. area, even in the absence of production from the Plant." DOE reiterated that finding in the two extensions of Order No. 202-05-3. DOE has no reason to believe that the emergency which formed the basis for its actions in this matter will continue to exist once the two new 230 kV transmission lines become operational, which is scheduled to occur in June 2007. Therefore, today's order will terminate on July 1, 2007. Nevertheless, if DCPSC or any other person believes at some future time that it can demonstrate that there is or continues to be an emergency situation that warrants the issuance of a FPA section 202(c) emergency order, it can file a request for such an order pursuant to DOE regulations and seek to make the showing required to justify issuance of such an order.

On February 17, 2006, I issued Order No. 202-06-1 granting the rehearing requests of the Commonwealth of Virginia's Department of Environmental Quality, the City of Alexandria, Virginia, and the District of Columbia Public Service Commission. I granted rehearing of Order No. 202-05-3 for the limited purpose of further consideration. The rehearing requests continue under consideration and are not being denied by the issuance of this order.

Based on the above, I find that the circumstances which led to my previous determination that the Central D.C. area was experiencing a shortage of electric energy continue, and therefore I hereby extend Order No. 202-05-3, as herein amended, until 12:01 a.m., July 1, 2007. The Ordering Paragraphs of Order No. 202-05-3 are hereby amended by replacing them in their entirety and inserting the Ordering Paragraphs contained in section IV below.

IV. Ordering Paragraphs

For the reasons set forth above, pursuant to section 202(c) of the Federal Power Act, it is hereby ordered that:

A. During any period in which one or both of the 230 kV lines serving the Central D.C. area is out of service, whether planned or unplanned, Mirant will operate the Potomac River Generating Plant to produce the amount of power (up to its full capacity) needed to meet demand in the Central D.C. area as specified by PJM for the duration of the outage.

1. In the event of a planned outage, Potomac River units will generate that amount of electricity specified by PJM to meet demand.

2. In the event of an unplanned 230 kV line outage, Potomac River units will generate that amount of electricity specified by PJM to meet demand as soon as possible.

When producing electricity pursuant to this paragraph, Mirant shall utilize pollution control equipment and measures to the maximum extent possible to minimize the magnitude and duration of any exceedance of the NAAQS. Compliance with the ACO shall constitute compliance with this requirement.

B. During periods when the two 230 kV lines serving the Central D.C. area are not out of service, Mirant shall keep as many units in operation, and shall take all other measures to reduce the start-up time of units not in operation, for the purpose of providing electricity reliability, but without causing or significantly contributing to any exceedance of the NAAQS or causing serious risk of danger to the Plant or unreasonable risk to Plant personnel. Pursuant to DOE's June 2, 2006 letter to Mirant, Mirant will operate the Plant in accordance with paragraph B of Part IV of the ACO, and any other applicable terms of the ACO.

C. Notice

In instances of scheduled outages of one of the 230 kV lines, PEPCO will give advance notice of the planned outage and the estimated duration of such outage to Mirant, PJM, DOE, FERC, EPA, DEQ, the Virginia Attorney General's Office, and the City of Alexandria's attorneys. The notice must be sufficiently in advance of the outage to allow Mirant to bring the required amount of generation needed for reliability purposes on line by the time the outage is scheduled. PEPCO will ensure that only those planned outages needed to maintain or enhance the reliability of the 230 kV lines (or to install new lines) are scheduled and that such outages are scheduled to minimize the environmental effects of the operation of the Plant.

PEPCO will notify DOE, PJM, FERC, EPA, DEQ, the Virginia Attorney General's Office, and the City of Alexandria's attorneys of any unplanned outage of one or both of the 230 kV lines as soon as possible, but in no event later than two hours after informing Mirant.

In the event of either a planned or unplanned outage, PJM will specify the amount of electricity that Mirant must provide in order to meet demand.

D. Pursuant to the terms of FPA section 202(c) and DOE regulations at 10 C.F.R. § 205.376, Mirant and its customers should agree to mutually satisfactory terms for any costs incurred by Mirant under this order. If no agreement can be reached, just and reasonable terms shall be established by a supplemental order.

E. DOE expects that the DCPSC will take all reasonable actions to augment electrical reliability and to reduce electricity demand in the Central D.C. area.

F. DOE will periodically reexamine the need for this order with particular emphasis on: (1) Mirant's progress, working with environmental regulators, in reducing emissions and/or the impact of emissions; and (2) whether the DCPSC is taking all reasonable actions available to it to support electricity reliability in the Central D.C. area.

Issued in Washington, D.C. this 31 day of January, 2007.

Samuel W. Bodman
Secretary of Energy